BIOLOGICALLY ACTIVE COMPOUNDS

THIS INVENTION relates to compounds which are inhbitors across a broad range of cysteine proteases, to the use of these compounds, and to pharmaceutical compositions comprising them. Particular compounds of the invention are inhibitors of cathepsin K and related cysteine protesases of the CA clan. Furthermore, such compounds are useful for the *in vivo* therapeutic treatment of diseases in which participation of a cysteine protease is implicated.

Proteases form a substantial group of biological molecules which to date constitute approximately 2% of all the gene products identified following analysis of several completed genome sequencing programmes. Proteases have evolved to participate in an enormous range of biological processes, mediating their effect by cleavage of peptide amide bonds within the myriad of proteins found in nature. This hydrolytic action is performed by initially recognising, then binding to, particular three-dimensional electronic surfaces displayed by a protein, which aligns the bond for cleavage precisely within the protease catalytic site. Catalytic hydrolysis then commences through nucleophilic attack of the amide bond to be cleaved either *via* an amino acid side-chain of the protease itself, or through the action of a water molecule that is bound to and activated by the protease. Proteases in which the attacking nucleophile is the thiol side-chain of a Cys residue are known as cysteine proteases. The general classification of 'cysteine protease' contains many members found across a wide range of organisms from viruses, bacteria, protozoa, plants and fungi to mammals.

Cathepsin K and indeed many other crucial proteases belong to the papain-like CA C1 family. Cysteine proteases are classified into 'clans' based upon a similarity in the three-dimensional structure or a conserved arrangement of catalytic residues within the protease primary sequence. Additionally, 'clans' may be further classified into 'families' in which each protease shares a statistically significant relationship with other members when comparing the portions of amino acid sequence which constitute the parts responsible for the protease

activity (see Barrett, A.J *et al,* in 'Handbook of Proteolytic Enzymes', Eds. Barrett, A. J., Rawlings, N. D., and Woessner, J. F. Publ. Academic Press, **1998**, for a thorough discussion).

To date, cysteine proteases have been classified into five clans, CA, CB, CC, CD and CE (Barrett, A. J. *et al,* **1998**). A protease from the tropical papaya fruit 'papain' forms the foundation of clan CA, which currently contains over 80 distinct and complete entries in various sequence databases, with many more expected from the current genome sequencing efforts. Proteases of clan CA / family C1 have been implicated in a multitude of house-keeping roles and disease processes. e.g. human proteases such as cathepsin K (osteoporosis), cathepsin S (autoimmune disorders), cathepsin L (metastases), cathepsin B (metastases, arthritis), cathepsin F (antigen processing), cathepsin V (T-cell selection), dipeptidyl peptidase I (granulocyte serine protease activation) or parasitic proteases such as falcipain (malaria parasite *Plasmodium falciparum*) and cruzipain (*Trypanosoma cruzi* infection). Recently a bacterial protease, staphylopain (*S. aureus* infection) has also been tentatively assigned to clan CA. X-ray crystallographic structures are available for a range of the above mentioned proteases in complex with a range of inhibitors e.g. papain (PDB entries, 1pad, 1pe6, 1pip, 1pop, 4pad, 5pad, 6pad, 1ppp, 1the, 1csb, 1huc), cathepsin K (1au0, 1au2, 1au3, 1au4, 1atk, 1mem, 1bgo, 1ayw, 1ayu, 1nl6, 1nlj), cathepsin L (1cs8, 1mhw), cathepsin S (1glo, 1ms6 and currently on-hold but published McGrath, M. E. *et al, Protein Science,* 7, 1294-1302, **1998**), cathepsin V (1fh0), dipeptidyl peptidase I (1jqp, 1k3b), cathepsin B (1gmy), cathepsin F (currently on-hold, but published Somoza, J. R. *et al, J. Mol. Biol.*, 322, 559-568, **2002**), cruzain (a recombinant form of cruzipain see Eakin, A. E. *et al,* 268(9), 6115-6118, **1993**) (1ewp, 1aim, 2aim, 1F29, 1F2A, 1F2B, 1F2C), staphylopain (1cv8). Each of the structures displays a similar overall active-site topology, as would be expected by their 'clan' and 'family' classification and such structural similarity exemplifies one aspect of the difficulties involved in discovering a selective inhibitor of cathepsin K suitable for human use. However, subtle differences in terms of the depth and intricate shape of the active site groove of each CA C1 protease are

evident, which may be exploited for selective inhibitor design. Additionally, many of the current substrate-based inhibitor complexes of CA C1 family proteases show a series of conserved hydrogen bonds between the inhibitor and the protease backbone, which contribute significantly to inhibitor potency. Primarily a bidentate hydrogen-bond is observed between the protease Gly66 (C=O)/ inhibitor N-H and the protease Gly66(NH)/inhibitor (C=O), where the inhibitor (C=O) and (NH) are provided by an amino acid residue NHCHRCO that constitutes the S2 sub-site binding element within the inhibitor (see Berger, A. and Schecter, I. *Philos. Trans. R. Soc. Lond. [Biol.]*, 257, 249-264, **1970** for a description of protease binding site nomenclature). A further hydrogen-bond between the protease main-chain (C=O) of asparagine or aspartic acid (158 to 163, residue number varies between proteases) and an inhibitor (N-H) is often observed, where the inhibitor (N-H) is provided by the S1 sub-site binding element within the inhibitor. Thus, the motif X-NHCHRCO-NH-Y is widely observed amongst the prior art substrate-based inhibitors of CA C1 proteases.

Cathepsin K is thought to be significant in diseases involving excessive loss of bone or cartilage. Bone consists of a protein matrix incorporating hydroxyapatite crystals. About 90% of the structural protein of the matrix is type I collagen, with the remainder comprising various non-collagenous proteins such as osteocalcin, proteoglycans, osteopontin, osteonectin, thrombospondin, fibronectin and bone sialoprotein.

Skeletal bone is not a static structure but continually undergoes a cycle of bone resorption and replacement. Bone resorption is carried out by osteoclasts, which are multinuclear cells of haematopoietic lineage. Osteoclasts adhere to the bone surface and form a tight sealing zone. The membrane on the apical surface of the osteoclasts is folded so as to create a closed extracellular compartment between the osteoclast and the bone surface, which is acidified by proton pumps in the osteoclast membrane. Proteolytic enzymes are secreted into the compartment from the osteoclast. The high acidity in the compartment causes the hydroxyapatite at the surface of the bone to be dissolved and the proteolytic

enzymes break down the protein matrix causing a resorption lacuna to be formed. Following bone resorption, osteoblasts produce a new protein matrix that is subsequently mineralised.

In disease states such as osteoporosis and Paget's disease, the bone resorption and replacement cycle is disrupted leading to a net loss of bone with each cycle. This leads to weakening of the bone and therefore to increased risk of bone fracture.

Cathepsin K is expressed at a high level in osteoclasts and is therefore thought to be essential for bone resorption. Therefore, selective inhibition of cathepsin K is likely to be effective in the treatment of diseases involving excessive bone loss. These include osteoporosis, gingival diseases such as gingivitis and periodontitis, Paget's disease, hypercalaemia of malignancy and metabolic bone disease.

In addition to osteoclasts, high levels of cathepsin K are also found in chondroclasts from the synovium of osteoarthritic patients. It therefore appears that cathepsin K inhibitors will be of use in the treatment of diseases involving matrix or cartilage degradation, in particular osteoarthritis and rheumatoid arthritis.

Elevated levels of cathepsin K are also found in metastatic neoplastic cells which suggests that cathepsin K inhibitors may also be useful for treating certain neoplastic diseases.

In the prior art, the development of cysteine protease inhibitors for human use has recently been an area of intense activity (*e.g.* see Bromme, D. and Kaleta, J., *Curr. Pharm. Des.*, 8, 1639-1658, **2002**; Kim, W. and Kang, K., *Expert Opin. Ther. Patents*, 12(3), 419-432, **2002**; Leung-Toung, R. *et al. Curr. Med. Chem.*, 9, 979-1002, **2002**; Lecaille, F. *et al., Chem. Rev.*, 102, 4459-4488, **2002**; Hernandez, A. A. and Roush, W. R., *Curr. Opin. Chem. Biol.*, 6, 459-465, **2002**). Considering the CA C1 family members, particular emphasis has been placed upon the development of inhibitors of human cathepsins, primarily cathepsin K

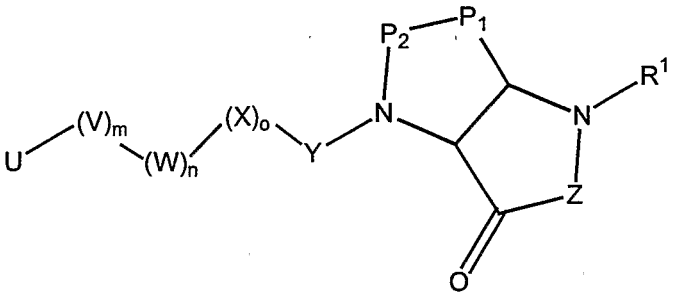
(osteoporosis), cathepsin S (autoimmune disorders), cathepsin L (metastases), cathepsin B (metastases, arthritis), cathepsin F (antigen processing), cathepsin V (T-cell selection) and dipeptidyl peptidase I (granulocyte serine protease activation), through the use of peptide and peptidomimetic nitriles (*e.g.* see WO-A-03041649, WO-A-03037892, WO-A-03029200, WO-A-02051983, WO-A-02020485, US-A-20020086996, WO-A-01096285, WO-A-0109910, WO-A-0051998, WO-A-0119816, WO-A-9924460, WO-A-0049008, WO-A-0048992, WO-A-0049007, WO-A-0130772, WO-A-0055125, WO-A-0055126, WO-A-0119808, WO-A-0149288, WO-A-0147886), linear and cyclic peptide and peptidomimetic ketones (*e.g.* see Veber, D. F. and Thompson, S. K., *Curr. Opin. Drug Discovery Dev.*, 3(4), 362-369, **2000**, WO-A-02092563, WO-A-02017924, WO-A-01095911, WO-A-0170232, WO-A-0178734, WO-A-0009653, WO-A-0069855, WO-A-0029408, WO-A-0134153 to WO-A-0134160, WO-A-0029408, WO-A-9964399, WO-A-9805336, WO-A-9850533), ketoheterocycles (*e.g.* see WO-A-02080920, WO-A-03042197, WO-A- WO-A-03024924, WO-A-0055144, WO-A-0055124), monobactams (*e.g.* see WO-A-0059881, WO-A-9948911, WO-A-0109169), α-ketoamides (*e.g.* see WO-A-03013518), cyanoamides (WO-A-01077073, WO-A-01068645), dihydro pyrimidines (*e.g.* see WO-A-02032879) and cyanoaminopyrimidines (*e.g.* see WO-A-03020278, WO-A-03020721). The prior art describes potent *in vitro* inhibitors, but also highlights the many difficulties in developing a human therapeutic. For example, WO-A-9850533 and WO-A-0029408 describe compounds that may be referred to as cyclic ketones and are inhibitors of cysteine proteases with a particular reference towards papain family proteases and as a most preferred embodiment, cathepsin K. WO-A-9850533 describes compounds subsequently detailed in the literature as potent inhibitors of cathepsin K with good oral bioavailability (Witherington, J., 'Tetrahydrofurans as Selective Cathepsin K Inhibitors', RSC meeting, Burlington House, London, **1999**). The compounds of WO-A-9850533 were reported to bind to cathepsin K through the formation of a reversible covalent bond between the tetrahydrofuran carbonyl and the active site catalytic cysteine residue (Witherington, J., **1999**). Additionally, the same cyclic ketone compounds are described in WO-A-9953039 as part of a wide-ranging description of inhibitors of

cysteine proteases associated with parasitic diseases, with particular reference to the treatment of malaria by inhibition of falcipain. However, subsequent literature describes the cyclic ketone compounds of WO-A-9850533 to be unsuitable for further development or for full pharmacokinetic evaluation due to a physiochemical property of the inhibitors, the poor chiral stability of the α-aminoketone chiral centre (Marquis, R. W. *et al*, J. Med. Chem., 44(5), 725-736, **2001**). WO-A-0069855 describes compounds that may also be referred to as cyclic ketones with particular reference towards inhibition of cathepsin S. The compounds of WO-A-0069855 are considered to be an advance on compounds of WO-A-9850533 due to the presence of the β-substituent on the cyclic ketone ring system that provides chiral stability to the α-carbon of the cyclic ketone ring system. However, the compounds of WO-A-0069855 and indeed those of WO-A-9850533 describe a requirement for the presence of the potential hydrogen-bonding motif X-NHCHRCO-NH-Y that is widely observed amongst the prior art substrate-based inhibitors of CA C1 proteases.

Our earlier patent application (WO-A-02057270) describes bicyclic compounds in which the chirality of the α-aminoketone is stabilised (for a review of energetic considerations within fused ring systems see Toromanoff, E. *Tetrahedron Report No 96*, 36, 2809-2931, **1980**). These compounds do not contain the X-NHCHRCO-NH-Y motif and yet the compounds are highly potent inhibitors across a broad range of CA C1 cysteine proteases. In particular, certain of the compounds are potent and selective cruzipain inhibitors.

The present invention relates to variants of the compounds described in WO-A-02057270 which are also inhibitors of a wide range of CA C1 cysteine protease. In particular, some compounds of the present invention are potent and selective inhibitors of cathepsin K.

Therefore, in the present invention, there is provided a compound of general formula (I)



(I)

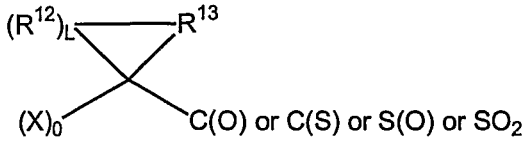
wherein:

$Z = CR^3R^4$, where R^3 and R^4 are independently chosen from C_{0-7}-alkyl (when C = 0, R^3 or R^4 is simply a hydrogen atom), C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl (when C = 0, R^3 or R^4 is simply an aromatic moiety Ar),

$P_1 = CR^5R^6$, where R^5 and R^6 are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl, O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N(C_{0-7}-alkyl)$_2$, N(C_{3-6}-cycloalkyl)$_2$ or N(Ar-C_{0-7}-alkyl)$_2$;

P_2 = O, CR^7R^8 or NR^9, where R^7 and R^8 are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and R^9 is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl;

Y = $CR^{10}R^{11}$-C(O) or $CR^{10}R^{11}$-C(S) or $CR^{10}R^{11}$-S(O) or $CR^{10}R^{11}$-SO_2 where R^{10} and R^{11} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl, or Y represents



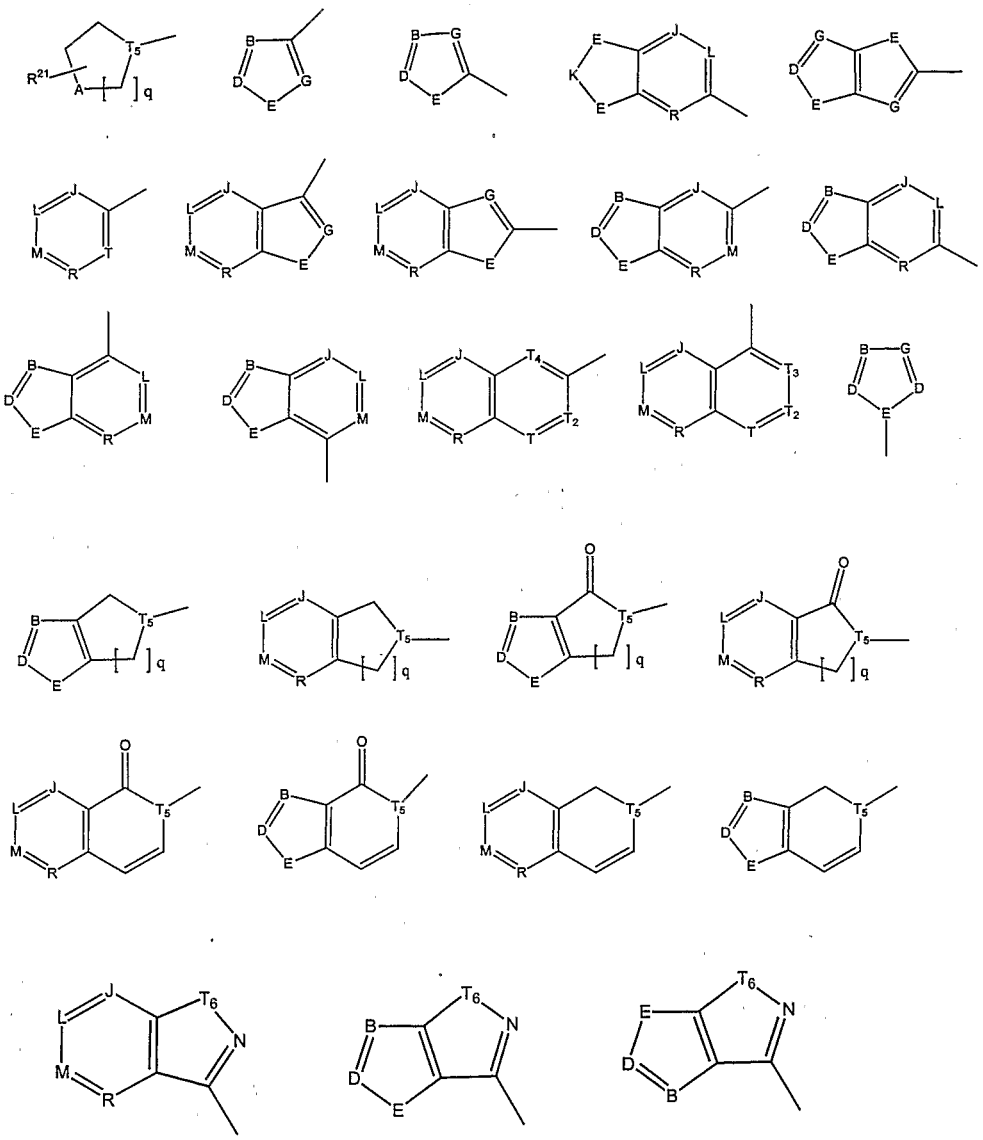
where L is a number from one to four and R^{12} and R^{13} are independently chosen from $CR^{14}R^{15}$ where R^{14} and R^{15} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl or halogen; and for each R^{12} and R^{13} either R^{14}or R^{15} (but not both R^{14} and R^{15}) may additionally be chosen from O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N-(C_{0-7}-alkyl)$_2$, N-(C_{3-6}-cycloalkyl)$_2$, and N-(Ar-C_{0-7}-alkyl)$_2$;

$(X)_o$ = $CR^{16}R^{17}$, where R^{16} and R^{17} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl and o is a number from zero to three;

$(W)_n$ = O, S, C(O), S(O) or $S(O)_2$ or NR^{18}, where R^{18} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl and n is zero or one;

$(V)_m$ = C(O), C(S), S(O), $S(O)_2$, $S(O)_2NH$, OC(O), NHC(O), NHS(O), $NHS(O)_2$, OC(O)NH, C(O)NH or $CR^{19}R^{20}$, C=N-C(O)-OR^{19} or C=N-C(O)-NHR^{19}, where R^{19} and R^{20} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and m is a number from zero to three, provided that when m is greater than one, $(V)_m$ contains a maximum of one carbonyl or sulphonyl group;

U = a stable 5- to 7-membered monocyclic or a stable 8- to 11-membered bicyclic ring which is either saturated or unsaturated and which includes zero to four heteroatoms (as detailed below):



wherein R^{21} is:

C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl, O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, SO_2-C_{0-7}-alkyl, SO_2-C_{3-6}-cycloalkyl, SO_2-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N(C_{0-7}-alkyl)$_2$, N(C_{3-6}-cycloalkyl)$_2$ or N(Ar-C_{0-7}-alkyl)$_2$; or, when part of a CHR^{21} or CR^{21} group, R^{21} may be halogen;

A is chosen from:

CH_2, CHR^{21}, O, S, SO_2, NR^{22} or N-oxide (N→O), where R^{21} is as defined above; and R^{22} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl;

B, D and G are independently chosen from:

CR^{21}, where R^{21} is as defined above, or N or N-oxide (N→O);

E is chosen from:

CH_2, CHR^{21}, O, S, SO_2, NR^{22} or N-oxide (N→O), where R^{21} and R^{22} are defined as above;

K is chosen from:

CH_2, CHR^{22}, where R^{22} is defined as above;

J, L, M, R, T, T_2, T_3 and T_4 are independently chosen from:

CR^{21} where R^{21} is as defined above, or N or N-oxide (N→O);

T_5 is chosen from:

CH or N;

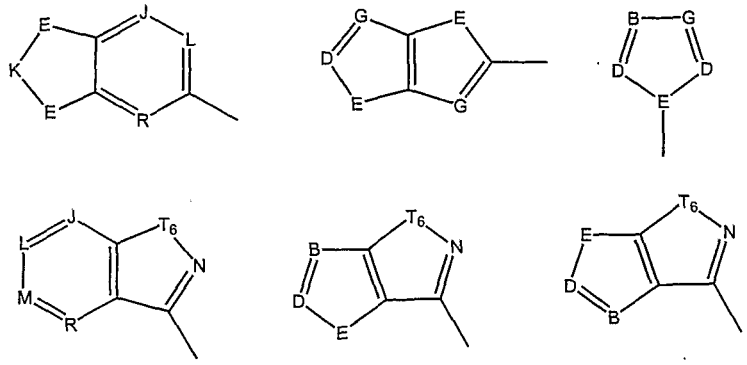
T_6 is chosen from:

NR^{22}, SO_2, OC(O), C(O), $NR^{22}C(O)$;

q is a number from one to three, thereby defining a 5-, 6- or 7-membered ring;

$R^1 = R^2C(O)$, $R^2OC(O)$, $R^2NQC(O)$, R^2SO_2, where R^2 is chosen from C_{1-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl (when C = 0, R^2 is simply an aromatic moiety Ar) and Q is C_{0-7}-alkyl;

provided that when Y is other than $CR^{10}R^{11}$-C(O) or when U is:



R^1 may also be C_{0-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl.

The present invention includes all salts, hydrates, solvates, complexes and prodrugs of the compounds of this invention. The term "compound" is intended to include all such salts, hydrates, solvates, complexes and prodrugs, unless the context requires otherwise.

Appropriate pharmaceutically and veterinarily acceptable salts of the compounds of general formula (I) include salts of organic acids, especially carboxylic acids, including but not limited to acetate, trifluoroacetate, lactate, gluconate, citrate, tartrate, maleate, malate, pantothenate, adipate, alginate, aspartate, benzoate, butyrate, digluconate, cyclopentanate, glucoheptanate, glycerophosphate, oxalate, heptanoate, hexanoate, fumarate, nicotinate, palmoate, pectinate, 3-phenylpropionate, picrate, pivalate, proprionate, tartrate, lactobionate, pivolate, camphorate, undecanoate and succinate, organic sulphonic acids such as methanesulphonate, ethanesulphonate, 2-hydroxyethane sulphonate, camphorsulphonate, 2-naphthalenesulphonate, benzenesulphonate, p-chlorobenzenesulphonate and p-toluenesulphonate; and inorganic acids such as hydrochloride, hydrobromide, hydroiodide, sulphate, bisulphate, hemisulphate,

thiocyanate, persulphate, phosphoric and sulphonic acids. Salts which are not pharmaceutically or veterinarily acceptable may still be valuable as intermediates.

Prodrugs are any covalently bonded compounds which release the active parent drug according to general formula (I) *in vivo*. A prodrug may for example constitute an acetal or hemiacetal derivative of the exocyclic ketone functionality present in the hexahydropyrrolo[3,2-*b*]pyrrol-3-one, hexahydropyrrolo[3,2-*c*]pyrazol-6-one or hexahydro-2-oxa-1,4-diazapentalen-6-one scaffold. If a chiral centre or another form of isomeric centre is present in a compound of the present invention, all forms of such isomer or isomers, including enantiomers and diastereoisomers, are intended to be covered herein. Compounds of the invention containing a chiral centre may be used as a racemic mixture, an enantiomerically enriched mixture, or the racemic mixture may be separated using well-known techniques and an individual enantiomer may be used alone.

'Halogen' as applied herein is meant to include F, Cl, Br, I;

'Heteroatom' as applied herein is meant to include O, S and N;

'C_{0-7}-alkyl' as applied herein is meant to include stable straight and branched chain aliphatic carbon chains containing zero (*i.e.* simply hydrogen) to seven carbon atoms such as methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, t-butyl, pentyl, isopentyl, hexyl, heptyl and any simple isomers thereof. Additionally, where 'C_{0-7}-alkyl' contains 2 or more contiguous carbon atoms, an alkene (-CH=CH-) may be present. Additionally, any C_{0-7}-alkyl may optionally be substituted at any point by one, two or three halogen atoms (as defined above) for example to give a trifluoromethyl substituent. Furthermore, C_{0-7}-alkyl may contain one or more heteroatoms (as defined above) for example to give ethers, thioethers, sulphones, sulphonamides, substituted amines, amidines, guanidines, carboxylic acids, carboxamides. If the heteroatom is located at a chain terminus then it is appropriately substituted with one or two hydrogen atoms. A heteroatom or halogen is only present when C_{0-7}-alkyl contains a minimum of one carbon

atom. For example, the group CH_3-CH_2-O-CH_2-CH_2- is defined within 'C_{0-7}-alkyl' as a C_4 alkyl that contains a centrally positioned heteroatom whereas the group CH_3-CH_2-CH_2-CH_2- is defined within 'C_{0-7}-alkyl' as an unsubstituted C_4 alkyl.

'C_{3-6}-cycloalkyl' as applied herein is meant to include any variation of 'C_{0-7}-alkyl' which additionally contains a carbocyclic ring such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl. The carbocyclic ring may optionally be substituted at any position with one or more halogens (as defined above) or heteroatoms (as defined above) for example to give a tetrahydrofuran, pyrrolidine, piperidine, piperazine or morpholine substituent.

'Ar-C_{0-7}-alkyl' as applied herein is meant to include any variation of C_{0-7}-alkyl which additionally contains an aromatic ring moiety 'Ar'. The aromatic ring moiety Ar can be a stable 5 or 6-membered monocyclic or a stable 8 to 10 membered bicyclic ring which is unsaturated, as defined previously for U in general formula (I). The aromatic ring moiety Ar may be substituted by R^{21} (as defined above for U in general formula (I)). When C = 0 in the substituent Ar-C_{0-7}-alkyl, the substituent is simply the aromatic ring moiety Ar.

Other expressions containing terms such as alkyl and cycloalkyl are intended to be construed according to the definitions above. For example "C_{1-4} alkyl" is the same as C_{0-7}-alkyl except that it contains from one to four carbon atoms.

If different structural isomers are present, and/or one or more chiral centres are present, all isomeric forms are intended to be covered. Enantiomers are characterised by the absolute configuration of their chiral centres and described by the *R*- and *S*-sequencing rules of Cahn, Ingold and Prelog. Such conventions are well known in the art (e.g. see 'Advanced Organic Chemistry', 3rd edition, ed. March, J., John Wiley and Sons, New York, **1985**). It is also intended to include compounds of general formula (I) where any hydrogen atom has been replaced by a deuterium atom.

Compounds of general formula I are inhibitors of a wide range of CA C1 cysteinyl proteases for example cathepsin K, cathepsin S, cathepsin L, cathepsin F, cathepsin B, cruzipains, falcipains and *leismania mexicana* CPB protease.

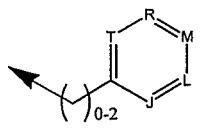
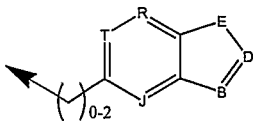
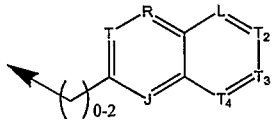
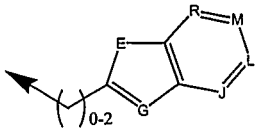
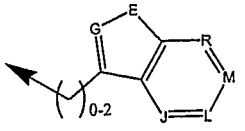
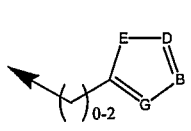
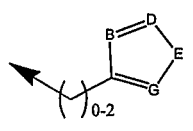
For all the above mentioned CA C1 proteases, the preferred fundamental backbone shape of inhibitor molecules is broadly similar. Therefore, the preferred compounds of general formula (I) will have similar $(V)_m$, $(W)_n$, $(X)_o$ and R^1 whether they act as cathepsin K cathepsin S, cathepsin L, cathepsin F, cathepsin B, cruzipains, falcipains or *leismania mexicana* CPB protease inhibitors. Within general formula (I), inhibitory potency and selectivity for each CA C1 protease is primarily determined by different preferences for the Y and U groups for each CA C1 protease.

Preferred compounds of general formula (I) include, but are not limited to those which, independently or in any combination:

Z is CH_2;
P^1 is CH_2;
P^2 is CH_2, O or NH.

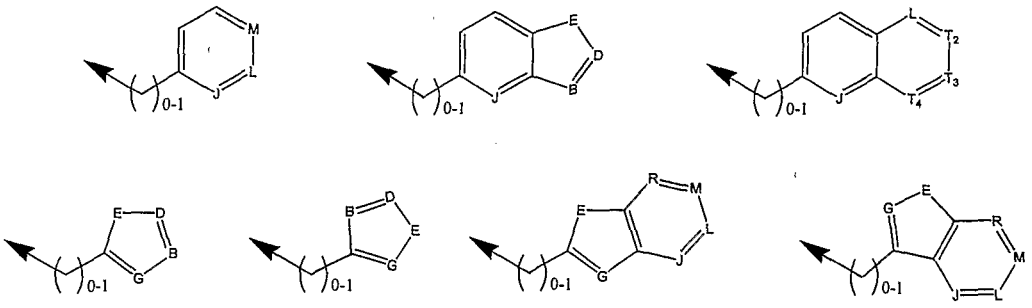
As mentioned above, cysteine protease inhibitors of general formula (I), comprise an R^2 group chosen from C_{1-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl.

When R^2 comprises Ar-C_{0-7}-alkyl, preferred R^2 groups comprise Ar-C_{0-2}-alkyl and examples include but are not limited to:

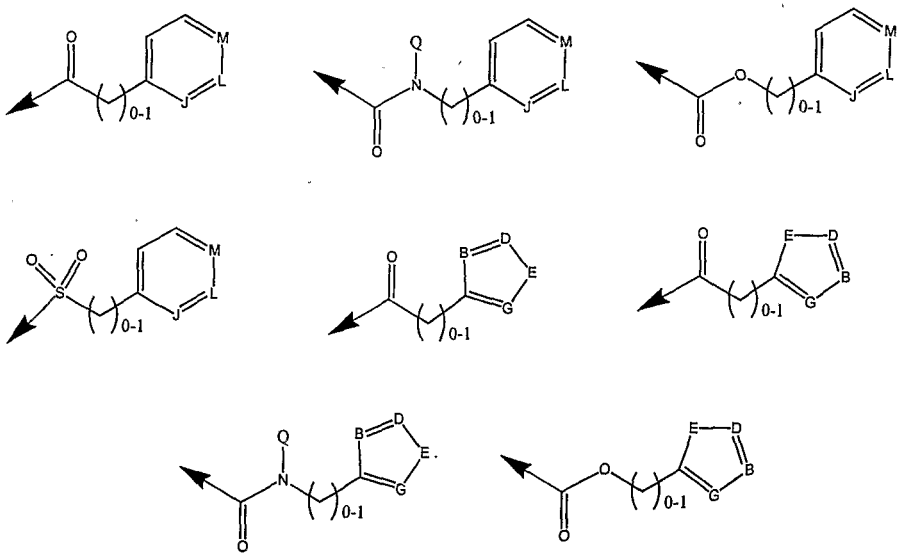
where J, L, M, R, T, T_2, T_3 and T_4, B, D, G and E are as previously defined.

More preferred R^2 comprises Ar-C_{0-1}-alkyl and examples of such R^2 groups include, but are not limited to:



where J, L, M, T_2, T_3, T_4, B, D, G and E are as previously defined.

Still more active compounds of general formula (I) are those in which R^2 comprises a monocyclic Ar-C_{0-1}-alkyl and forms part of an R^1 group such as:



wherein:

J, L, M, B, D and G are as defined above (i.e. CR^{21}, N or N→O) and wherein R^{21} is chosen from hydrogen, methyl, methoxy, ethyl, isopropyl, trifluoromethyl, trifluoromethoxy, F, Cl, SO_2Me; and

E is as previously defined; and

Q is chosen from hydrogen or methyl.

In cysteine protease inhibitors of general formula (I) when R^2 is C_{1-7}-alkyl, preferred R^2 groups comprise C_{3-7}-alkyl which may include an -O- or -NH- as part of the chain and which is either unsubstituted or is substituted with one or more NH_2, NHMe, $NHC(O)CH_3$, $NMeC(O)CH_3$, OH or OMe groups.

When R^2 is C_{3-7}-alkyl, more preferred groups include C_{3-6}-alkyl, in particular those which are branched at the α-position or which include an NH_2, NHMe, $NHC(O)CH_3$, $NMeC(O)CH_3$, OH or OMe substituent at the α-position.

In cysteine protease inhibitors of general formula (I) when R^2 is C_{3-6}-cycloalkyl, R^2 may include a heteroatom in the ring system. Examples of R^2 groups include cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidine, piperidine, morpholine, tetrahydrofuran, cyclopentene, cyclopentadiene, cyclohexadiene and piperazine. Nitrogen-containing rings may be N-substituted with groups such as C_{1-4} alkyl, phenyl or benzyl.

It is yet more preferred that when R^2 is a C_{3-6}-cycloalkyl group, the ring system is either connected directly to the remainder of the R^1 moiety or there is one intervening methylene group. The inventors have found that the activity of the molecule increases with the size of the cycloalkyl ring and therefore compounds in which R^2 is a five- or six-membered cyclic ring are most favourable.

In compounds of general formula (I), particularly preferred R^1 groups therefore include:

benzoyl; pyridine-2-carbonyl; 1-oxy-pyridine-2-carbonyl; pyridine-3-carbonyl; 1-oxy-pyridine-3-carbonyl; pyridine-4-carbonyl; 1-oxy-pyridine-4-carbonyl; phenyl sulphonyl; pyridine-2-sulphonyl; 1-oxy-pyridine-2-sulphonyl; pyridine-3-sulphonyl; 1-oxy-pyridine-3-sulphonyl; pyridine-4-sulphonyl; 1-oxy-pyridine-4-sulphonyl; phenylacetyl; phenylcarbamoyl; isobutylcarbamoyl; phenyloxycarbonyl; isobutyloxycarbonyl; pyrrolidine-N-carbonyl; piperidine-N-carbonyl; morpholine-N-carbonyl; piperazine-N-carbonyl; 4-methyl-piperazine-N-carbonyl; (4-methyl-piperazin-1-yl)-acetoyl; piperazin-1-yl-acetoyl; furan-2-carbonyl; 5-chlorofuran-2-carbonyl; thiophene-2-carbonyl; 5-chlorothiophene-2-carbonyl; furan-3-carbonyl; thiophene-3-carbonyl; cyclopentoyl; cyclohexoyl; cyclopent-3-enoyl; cyclopentylmethylcarbonyl; cyclohexylmethylcarbonyl; pyrrolidine-2-carbonyl; N-acetyl-pyrrolidine-2-carbonyl; piperidine-2-carbonyl; N-acetyl-piperidine-2-carbonyl; tetrahydrofuran-2-carbonyl; 1-aminocyclobutanoyl; 1-aminocyclopentanoyl; 1-aminocyclohexanoyl; N-acetyl-1-aminocyclobutanoyl; N-acetyl-1-aminocyclopentanoyl; N-acetyl-1-aminocyclohexanoyl; 1-hydroxycyclobutanoyl; 1-hydroxycyclopentanoyl; 1-hydroxycyclohexanoyl; 1-methoxycyclobutanoyl; 1-methoxycyclopentanoyl; 1-methoxycyclohexanoyl; aminocyclopentylacetoyl; aminocyclohexylacetoyl; N-acetylaminocyclopentylacetoyl; N-acetylaminocyclohexylacetoyl; 2-acetylaminopropionoyl; 2-acetylaminoethanoyl; 2-acetyl-N-methylaminoethanoyl; N,N-dimethylaminoacetoyl; 2-aminobutanoyl; N-acetyl-2-aminobutanoyl; 2-amino-3-methylbutanoyl; N-acetyl-2-amino-3-methylbutanoyl; 2-amino-3,3-dimethylbutanoyl; N-acetyl-2-amino-3,3-dimethylbutanoyl; 2-amino-3-methylpentanoyl; N-acetyl-2-amino-3-methylpentanoyl; pentanoyl; 3-methylpentanoyl; 4-methylpentanoyl; 2-amino-4-methylpentanoyl; N-acetyl-2-amino-4-methylpentanoyl; 2-amino-4,4-dimethylpentanoyl; N-acetyl-2-amino-4,4-dimethylpentanoyl; 2-aminopentanoyl; N-acetyl-2-aminopentanoyl; 2-amino-5-methylhexanoyl; N-acetyl-2-amino-5-methylhexanoyl; 2-hydroxy-3-methylbutanoyl; 2-methoxy-3-methylbutanoyl; 2-hydroxy-3,3-dimethylbutanoyl; 2-methoxy-3,3-dimethylbutanoyl; 2-hydroxy-3-methylpentanoyl; 2-methoxy-3-methylpentanoyl; 2-hydroxy-4-methylpentanoyl; 2-methoxy-4-methylpentanoyl; 2-hydroxy-4,4-dimethylpentanoyl; 2-methoxy-4,4-dimethylpentanoyl; 2-

hydroxypentanoyl; 2-methoxypentanoyl; 2-hydroxy-5-methylhexanoyl; 2-methoxy-5-methylhexanoyl;

In cysteine protease inhibitors of general formula (I), it is preferred that in the group $(X)_o$, each of R^{16} and R^{17} is selected from C_{0-7}-alkyl or Ar-C_{0-7}-alkyl, for example hydrogen, a straight or branched alkyl chain, a straight or branched heteroalkyl chain, an optionally substituted arylalkyl chain or an optionally substituted arylheteroalkyl chain.

More preferred $(X)_o$ groups comprise R^{16} chosen from hydrogen; R^{17} chosen from hydrogen or C_{1-4}-alkyl, which may be substituted with OH, $NR^{22}R^{22}$, $COOR^{22}$, or $CONR^{22}$; or Ar-C_{1-4}-alkyl, where the aryl group may be substituted with R^{21}, wherein each R^{21} and R^{22} is independently as defined previously.

Yet more preferred $(X)_o$ groups are those in which R^{16} is from hydrogen and R^{17} is chosen from hydrogen or simple C_{1-4}-alkyl groups such as methyl, ethyl, propyl, butyl.

In the most preferred $(X)_o$ groups, R^{16} and R^{17} are hydrogen and o is zero or one.

Preferred compounds of general formula (I) are those in which, in the group $(W)_n$, W is chosen from O, S, SO_2, S(O), C(O) or NR^{18}, where R^{18} is chosen from C_{0-7}-alkyl; and n is zero or one.

In more preferred $(W)_n$ groups, W comprises O, S, SO_2, C(O) or NH where n is zero or one.

Still more active compounds are those in which W is C(O) or NH where n is zero or one.

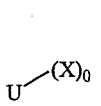
It is most preferred that in the group $(W)_n$, W is NH and n is zero or one.

In protease inhibitors of general formula (I), more active compounds are those in which, in the group $(V)_m$, V is chosen from C(O), OC(O), NHC(O), C(O)NH, CHR^{20}, C=N-C(O)-OR^{19} or C=N-C(O)-NHR^{19}

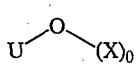
where R^{19} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and R^{20} is C_{0-4}-alkyl, and

m is zero or one.

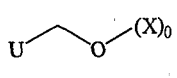
Examples of preferred V and W substituent combinations include, but are not limited to:



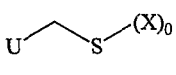
'n' = 0
'm' = 0



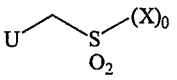
'n' = 1
'W' = O
'm' = 0



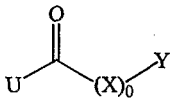
'n' = 1
'W' = O
'V' = CH_2
'm' = 1



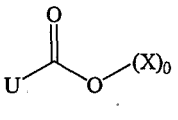
'n' = 1
'W' = S
'V' = CH_2
'm' = 1



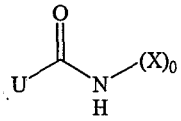
'n' = 1
'W' = SO_2
'V' = CH_2
'm' = 1



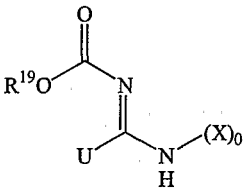
'n' = 1
'W' = C(O)
'm' = 0



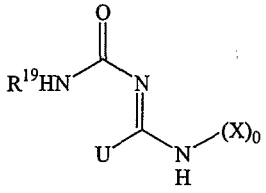
'n' = 1
'W' = O
'V' = C(O)
'm' = 1



'n' = 1
'W' = NR^{18}, R^{18} = 'H'
'V' = C(O)
'm' = 1

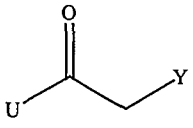


'n' = 1
'W' = NR^{18}, R^{18} = 'H'
'V' = C=N-C(O)-OR^{19}
'm' = 1

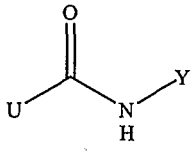


'n' = 1
'W' = NR^{18}, R^{18} = 'H'
'V' = C=N-C(O)-NHR^{19}
'm' = 1

Preferred V, W and X substituent combinations include, but are not limited to:



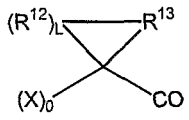
$(X)_0$ = 'CH_2'
'n' = 1
'W' = C(O)
'm' = 0



$(X)_0$ = '-'
'n' = 1
'W' = NR^{18}, R^{18} = 'H'
'V' = C(O)
'm' = 1

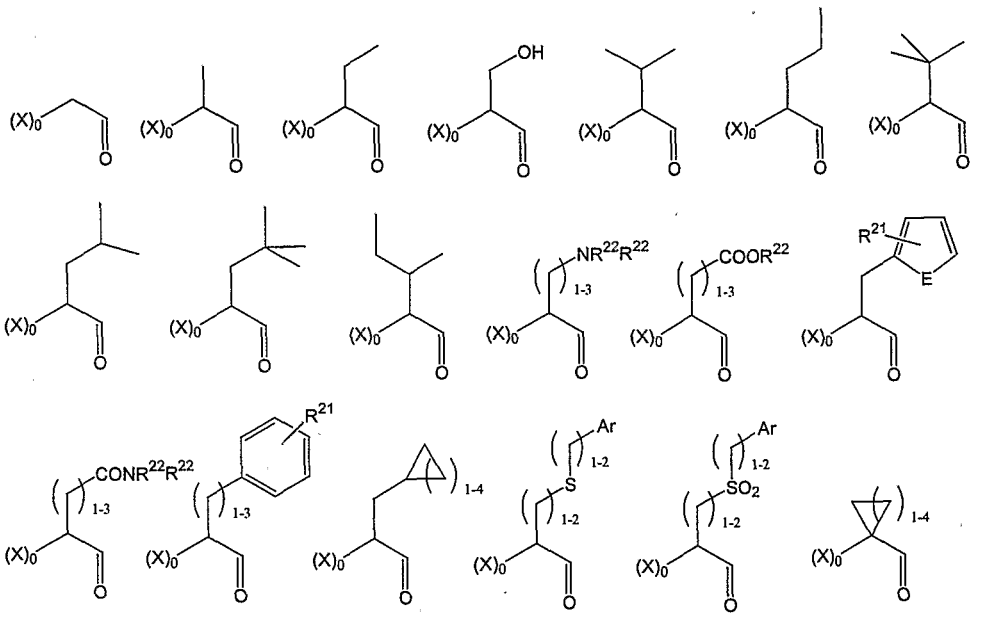
As mentioned above, the substituents Y and U are important in determining the inhibitory potency and selectivity for various proteases and the preferred Y and U substituents vary depending on the target protease.

In compounds of general formula (I) that are inhibitors of cathepsin K, it is preferred that the Y substituent is $CHR^{11}CO$ where R^{11} is selected from C_{0-7}-alkyl, Ar-C_{0-7}-alkyl or C_{3-6}-cycloalkyl. Examples of suitable R^{11} groups include, for example, hydrogen, a straight or branched alkyl chain, a straight or branched heteroalkyl chain, an optionally substituted arylalkyl chain or an optionally substituted arylheteroalkyl chain, cyclohexylmethyl or cyclopentylmethyl. Additionally, preferred compounds of general formula (I) are those in which Y comprises a group:



where R^{12} and R^{13} are each $CR^{14}R^{15}$ and each R^{14} and R^{15} is, independently, selected from C_{0-7}-alkyl or Ar-C_{0-7}-alkyl, for example hydrogen, a straight or branched alkyl chain, a straight or branched heteroalkyl chain, an optionally substituted arylalkyl chain or an optionally substituted arylheteroalkyl chain and L is a number from one to four.

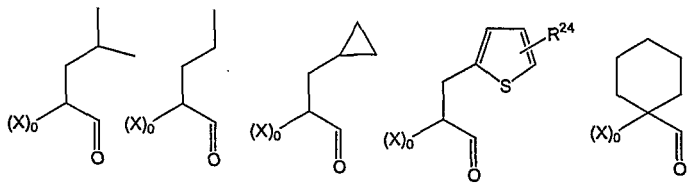
Examples of preferred Y substituents in compounds of general formula (I) which are inhibitors of cathepsin Kinclude, but are not limited to:



wherein E, R^{21}, R^{22} and Ar are as defined previously; any of which may be substituted with one or more halogen, preferably fluoro, substituents.

In compounds that are inhibitors of cathepsin K, more preferred R^{11} groups include C_{1-4}-alkyl, which may be substituted with cycloalkylmethyl or halogen, or R^{11} is chosen from cycloalkyl-1-carbonyl or R^{11} is chosen from Ar-C_{1-4}-alkyl, where the aryl group may be substituted with R^{21}; where R^{21} is defined above.

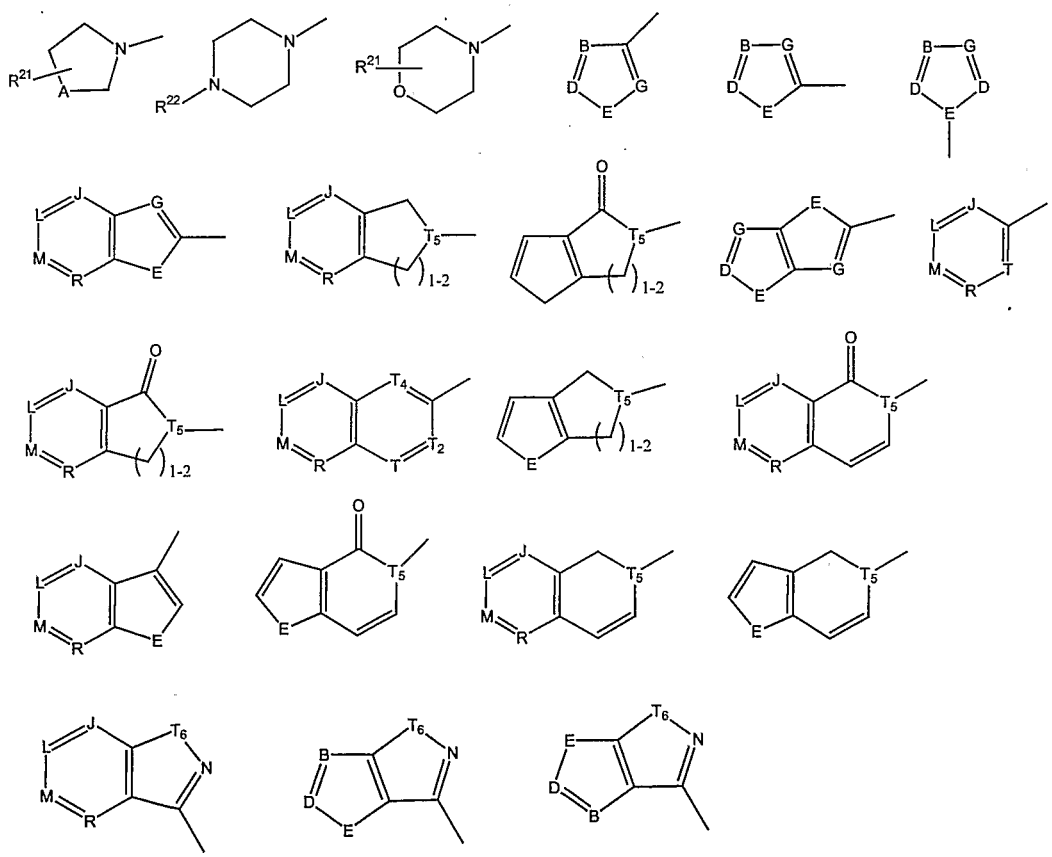
Increased inhibition of cathepsin K can be achieved in compounds in which the R^{11} groups are simple branched alkyl groups such as isobutyl or straight alkyl chains such as n-propyl, optionally substituted with one or more halogen (preferably fluoro) substitutents. Yet more preferred R^{11} groups comprise $ArCH_2$-, where the aromatic ring is an optionally substituted monocyclic heterocycle and still more preferred R^{11} groups comprise cyclopropylmethyl and cyclohexyl-1-carbonyl. In compounds which are particularly active inhibitors of cathepsin K, Y substituents include, but are not limited to:



wherein R^{24} is chosen from hydrogen, methyl, methoxy, ethyl, isopropyl, F, Cl and wherein any of the alkyl groups may be substituted with one or more F or Cl.

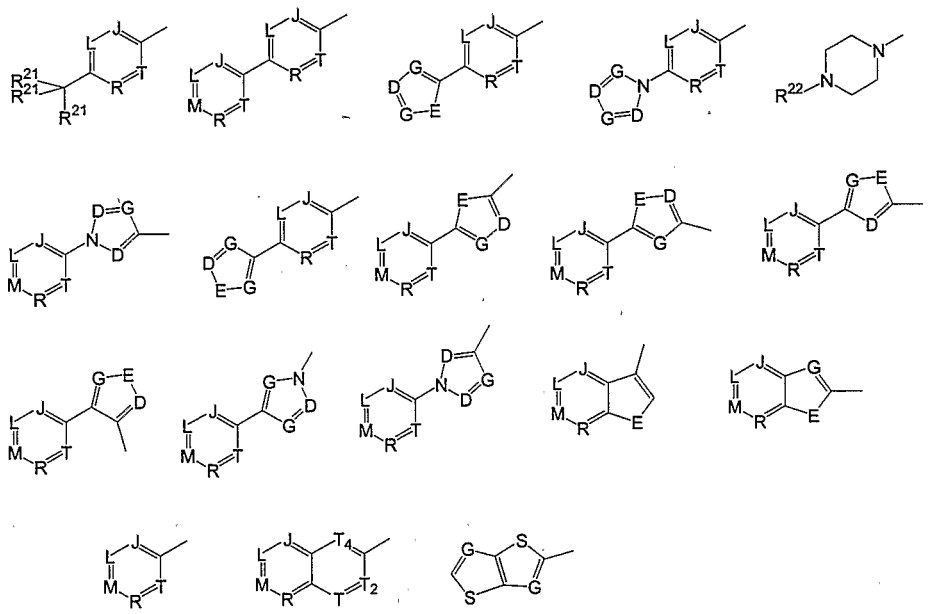
In order to maximise the inhibition of cathepsin K, the compound of formula (I) may comprise R^{11} groups which are simple branched alkyl groups such as isobutyl or n-propyl or halogen substituted variants thereof such as 3,3,3-trifluoro-2-trifluoromethylpropyl.

In compounds of general formula (I) that are inhibitors of cathepsin K, it is preferred that the group U comprises an optionally substituted 5- or 6-membered saturated or unsaturated heterocycle or Ar group or an optionally substituted saturated or unsaturated 8 to 10-membered heterocycle or Ar group. Examples of such preferred U rings include, but are not limited to the following:



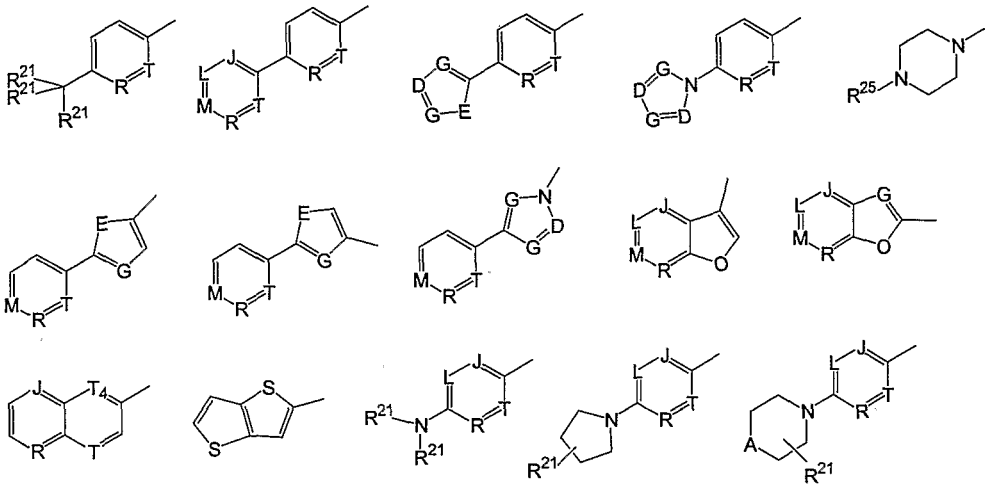
wherein R^{21}, R^{22}, A, B, D, E, G, J, L, M, R, T, T_2, T_4, T_5 and T_6 are as defined previously.

Stronger inhibition of cathepsin K can be achieved in compounds where the U groups comprise a bulky alkyl or aryl group at the para position of an aryl; a meta or para 5,6-biaryl Ar-Ar, where Ar is as previously defined; a 6,6 or 6,5 or 5,5-fused aromatic ring, where Ar is as previously defined, or a 4-substituted piperazine. Examples of more preferred U groups include but are not limited to:



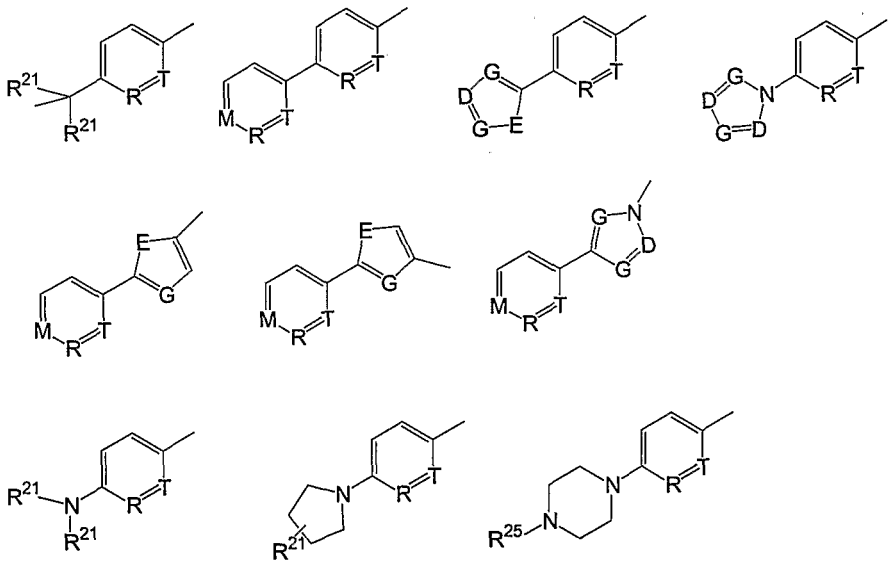
wherein R^{21}, R^{22}, D, E, G, J, L, M, R, T, T_2 and T_4 are as defined previously.

In compounds that are inhibitors of cathepsin K, even more preferred U groups comprise a 6-membered aromatic ring Ar containing a bulky alkyl or aryl group at the para position; a meta or para-biaryl Ar-Ar, where Ar is as previously defined; a 6,6 or 6,5 or 5,5-fused aromatic ring, where Ar is as previously defined; or a 4-substituted piperazine where R^{25} is chosen from hydrogen, C_{1-2}-alkyl or Ar-C_{0-2}-alkyl. Examples of even more preferred U groups include but are not limited to:



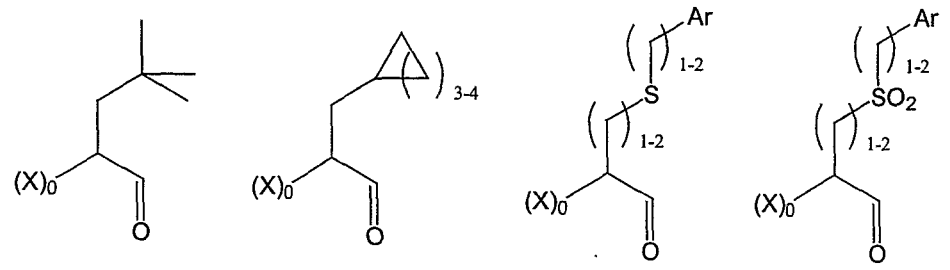
wherein R^{21}, R^{25}, D, E, G, J, L, M, R, T and T_4 are as defined previously.

In order to maximise inhibition of cathepsin K, compounds of general formula (I) may be selected to haveU groups chosen from the following:



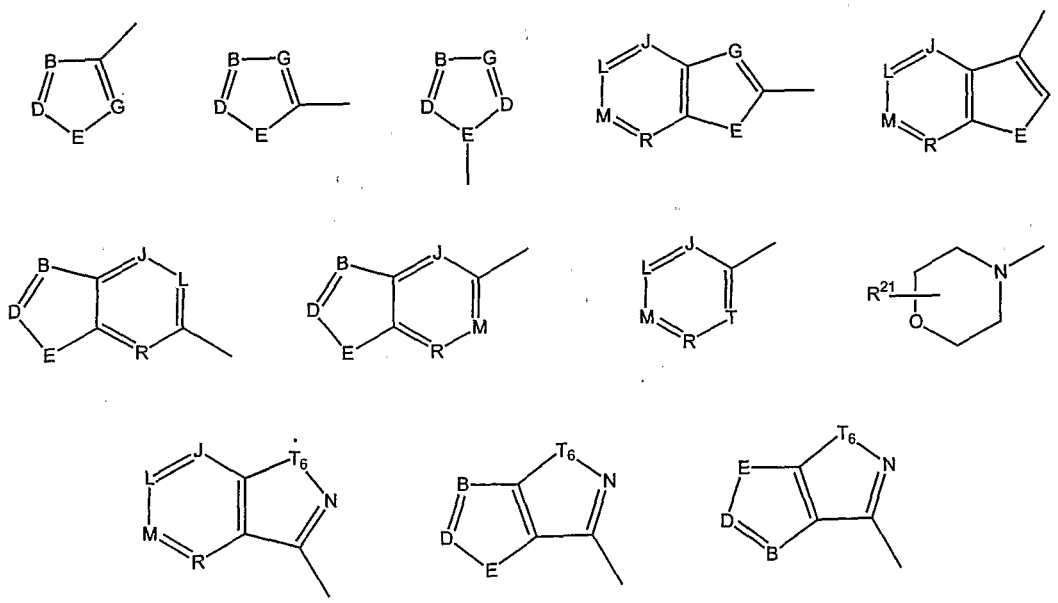
wherein R^{21}, R^{25}, D, E, G, M, R and T are as defined previously.

In order to achieve the greatest inhibitory effect against cathepsin S, it is preferred that the Y substituent is chosen from the following;



wherein $(X)_o$ and Ar are as previously defined.

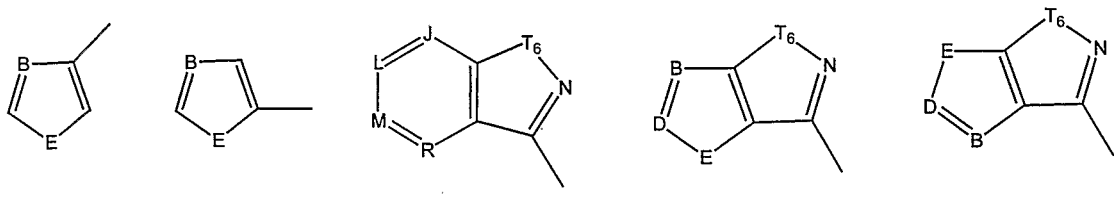
In order to achieve the greatest inhibitory effect against cathepsin S, it is preferred that the group U comprises an optionally substituted 5-membered unsaturated heterocycle or a 6,5- 5,5- or 5,6-fused aromatic ring, where Ar is as previously defined or a morpholine. Examples of such preferred U rings include, but are not limited to the following:



wherein R^{21}, B, D, E, G, J, L, M, R and T_6 are as defined previously.

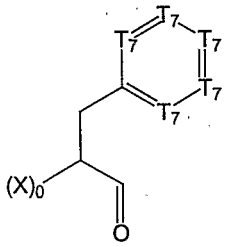
In order to achieve the greatest inhibitory effect against cathepsin S whilst retaining selectivity against other CA C1 cysteinyl proteases, it is more preferred that the group U comprises an optionally substituted 5-membered unsaturated

heterocycle or a 6,5- or 5,5-fused aromatic ring, where Ar is as previously defined. Examples of more preferred U rings include, but are not limited to the following:



wherein B, D, E, J, L, M, R and T_6 are as defined previously.

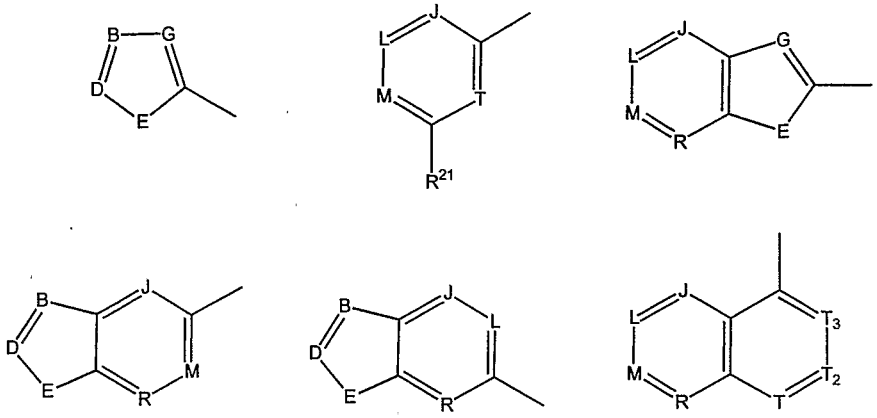
In order to achieve the greatest inhibitory effect against cathepsin L, it is preferred that the Y substituent is chosen as an aromatic group as follows;



wherein T_7 is chosen from CH, N or CR^{21} where R^{21} is as defined previously.

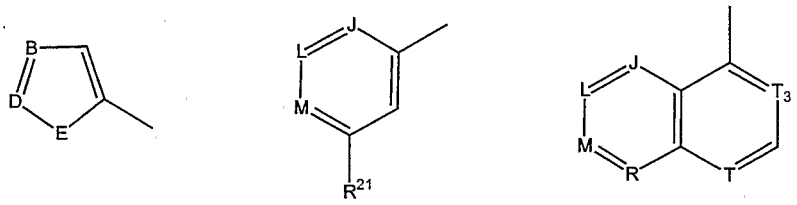
In particular, for cathepsin L inhibition it is more preferred that within the T_7 substituent that the R^{21} substituent is chosen from single and multiple ring substitution combinations of Me, F, Cl, OH and OMe.

In order to achieve the greatest inhibitory effect against cathepsin L, it is preferred that the group U comprises an optionally substituted 5-membered unsaturated heterocycle or a 6,6- or 6,5- or 5,6-fused aromatic ring, where Ar is as previously defined or a meta-substituted Ar. Examples of such preferred U rings include, but are not limited to the following:



wherein R^{21}, B, D, E, G, J, L, M, R, T, T_2 and T_3 are as defined previously.

In order to achieve the greatest inhibitory effect against cathepsin L whilst retaining selectivity against other CA C1 cysteinyl proteases, it is more preferred that the group U comprises a substituted 5-membered unsaturated heterocycle or a 6,6-fused aromatic ring, where Ar is as previously defined or a meta-substituted Ar. Examples of such preferred U rings include, but are not limited to the following:



wherein E is chosen from oxygen or N-ethyl, D is chosen from nitrogen or CCH_3, B is chosen from nitrogen or CCH_3, R^{21} is chosen from halogen, OMe, CF_3, OCF_3, CH_2NH_2 and J, L, M, R, T and T_3 are as previously defined.

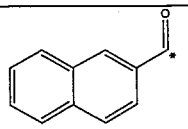
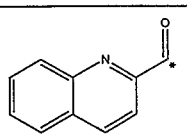
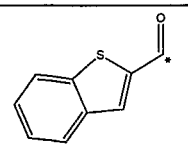
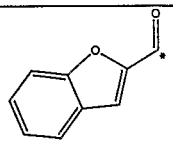
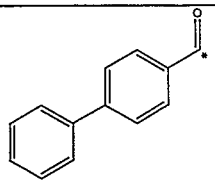
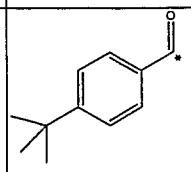
The inventors have observed that for the cruzipains and *leismania mexicana* CPB protease, that the U and Y substituent preferences are composed of a mixture of those described earlier for cathepsin K and cathepsin L. In essence, many of the preferred cathepsin K and cathepsin L inhibitors also show potency against the cruzipains and *leismania mexicana* CPB protease as highlighted in the

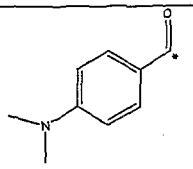
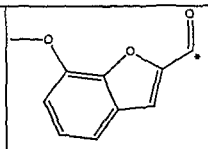
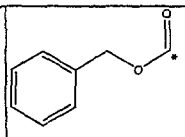
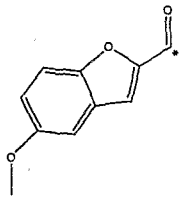
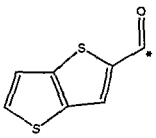
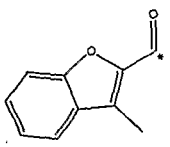
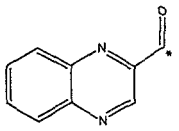
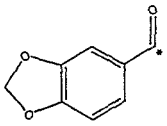
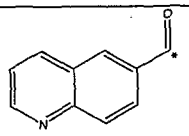
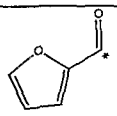
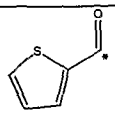
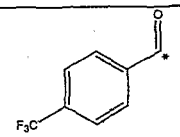
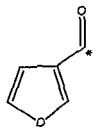
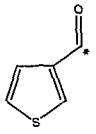
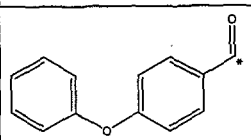
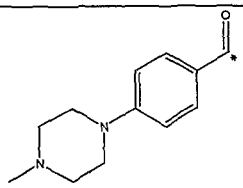
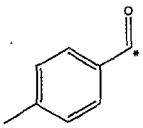
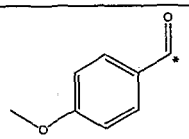
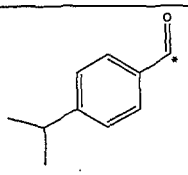
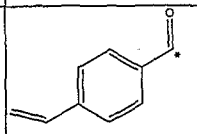
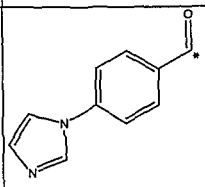
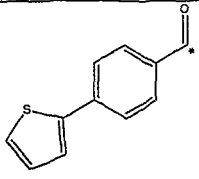
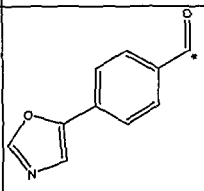
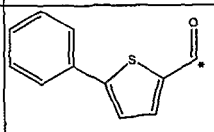
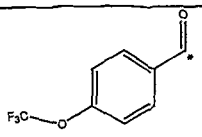
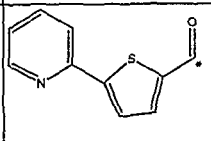
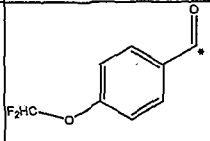
EXAMPLES section. Such promiscurity can be used to provide potent and selective inhibitors of the cruzipains and *leismania mexicana* CPB protease by combining a preferred U substituent as described for cathepsin K with a preferred Y substituent as described for cathepsin L or by combining a preferred U substituent as described for cathepsin L with a preferred Y substituent as described for cathepsin K. Such preferred combinations provide potent inhibitors of the cruzipains and *leismania mexicana* CPB protease with selectivity against either or both cathepsin K and cathepsin L.

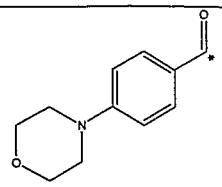
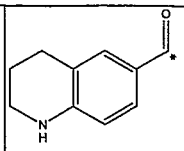
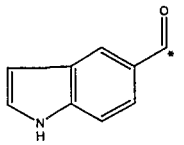
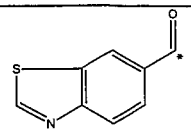
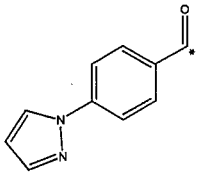
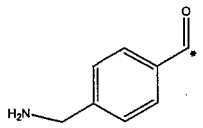
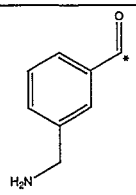
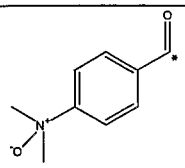
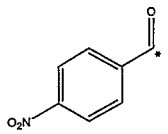
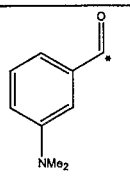
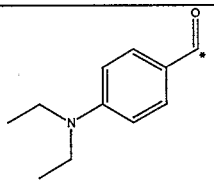
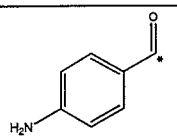
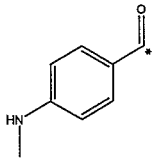
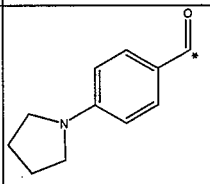
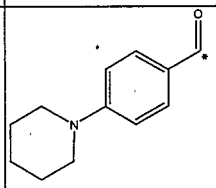
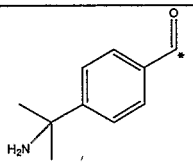
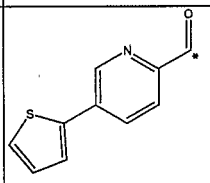
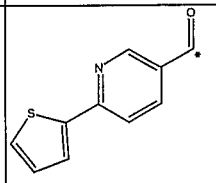
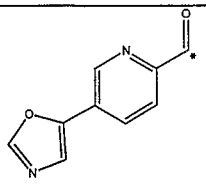
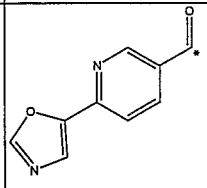
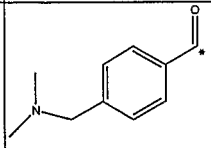
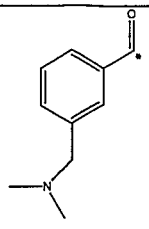
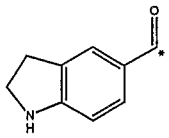
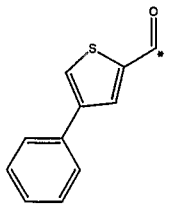
Particular compounds of the invention are selected from the compounds formed by joining one of the 'U-$(V)_m$' fragments herein defined as the 'Capping group (Cg1 to Cg103)' of general formula **(I)** shown in Table 1, with one of the '$(W)_n$-$(X)_o$-Y' fragments herein defined as the 'P2 pocket group (Pg1 to Pg39)' of general formula **(I)** shown in Table 2, with a 5,5-bicyclic scaffold containing one of the R^1 fragments herein defined as the 'Prime-side binding group (Ps1 to Ps243)' of general formula **(I)** shown in Table 3.

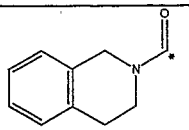
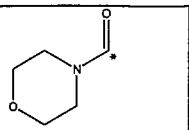
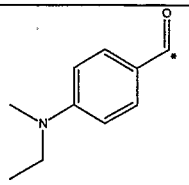
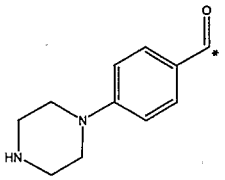
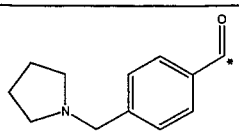
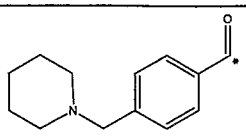
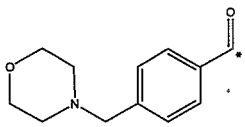
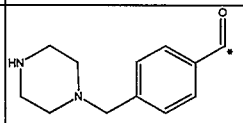
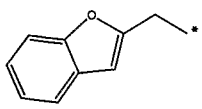
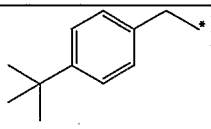
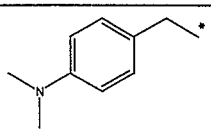
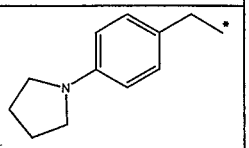
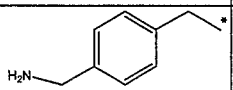
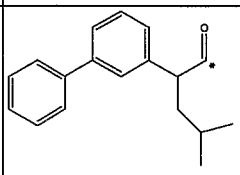
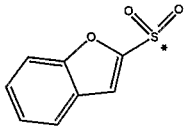
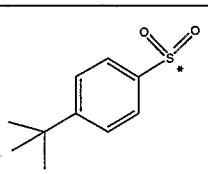
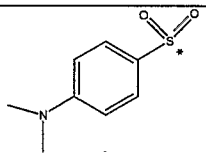
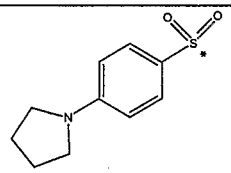
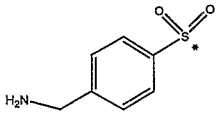
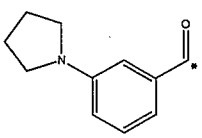
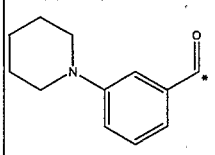
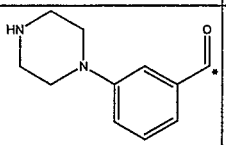
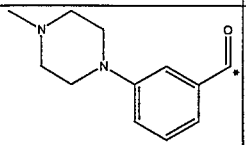
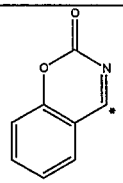
Table (1) 'Capping group Cg' Fragments

* signifies the point of attachment of 'Cg groups' to 'Pg groups'.

	U-$(V)_m$		U-$(V)_m$		U-$(V)_m$
Cg1		Cg2		Cg3	
Cg4		Cg5		Cg6	

Cg7		Cg8		Cg9	
Cg10		Cg11		Cg12	
Cg13		Cg14		Cg15	
Cg16		Cg17		Cg18	
Cg19		Cg20		Cg21	
Cg22		Cg23		Cg24	
Cg25		Cg26		Cg27	
Cg28		Cg29		Cg30	
Cg31		Cg32		Cg33	

Cg34		Cg35		Cg36	
Cg37		Cg38		Cg39	
Cg40		Cg41		Cg42	
Cg43		Cg44		Cg45	
Cg46		Cg47		Cg48	
Cg49		Cg50		Cg51	
Cg52		Cg53		Cg54	
Cg55		Cg56		Cg57	

Cg58		Cg59		Cg60	
Cg61		Cg62		Cg63	
Cg64		Cg65		Cg66	
Cg67		Cg68		Cg69	
Cg70		Cg71		Cg72	
Cg73		Cg74		Cg75	
Cg76		Cg77		Cg78	
Cg79		Cg80		Cg81	

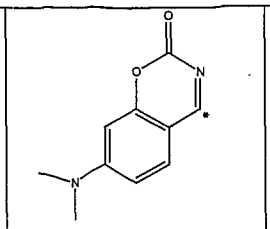
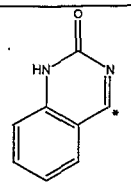
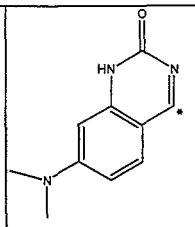
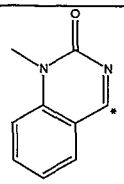
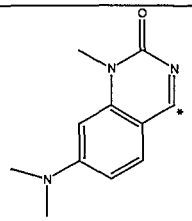
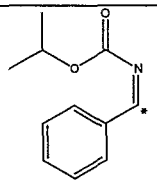
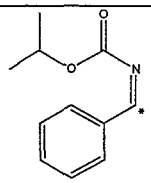
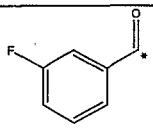
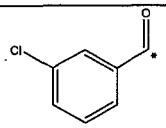
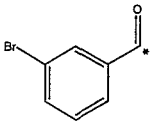
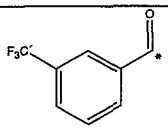
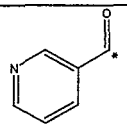
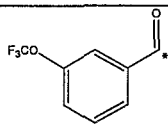
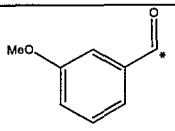
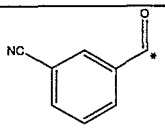
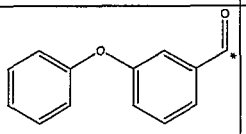
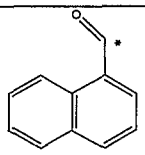
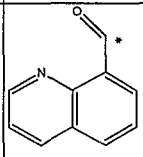
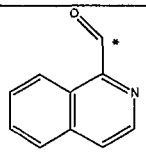
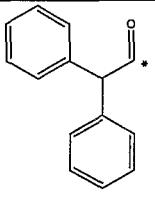
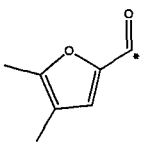
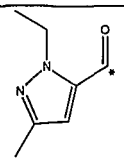
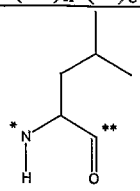
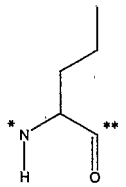
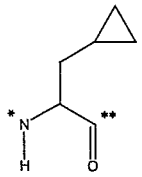
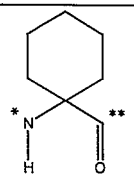
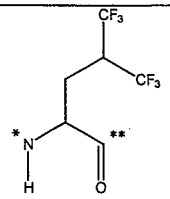
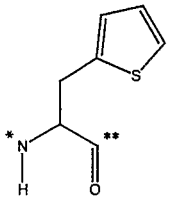
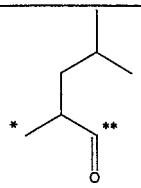
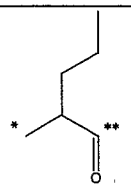
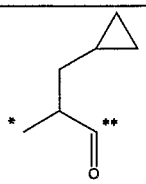
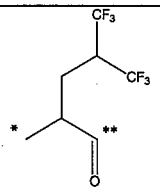
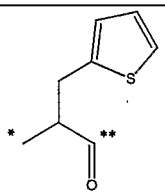
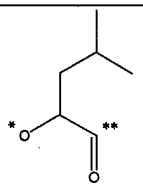
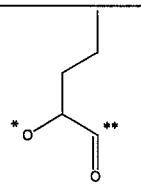
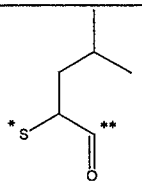
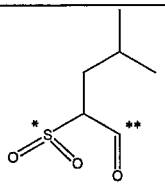
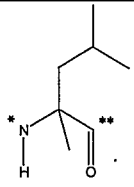
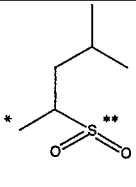
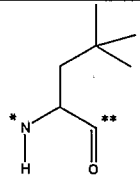
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Cg85		Cg86		Cg87	
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Cg91		Cg92		Cg93	
Cg94		Cg95		Cg96	
Cg97		Cg98		Cg99	
Cg100		Cg101		Cg102	
Cg103					

Table (2) 'P2 pocket group Pg' Fragments

** signifies the point of attachment of 'Pg groups' to 5,5-bicyclic scaffold.

	$(W)_n$-$(X)_o$-Y		$(W)_n$-$(X)_o$-Y		$(W)_n$-$(X)_o$-Y
Pg1		Pg2		Pg3	
Pg4		Pg5		Pg6	
Pg7		Pg8		Pg9	
Pg10		Pg11		Pg12	
Pg13		Pg14		Pg15	
Pg16		Pg17		Pg18	

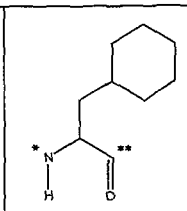
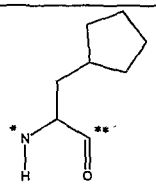
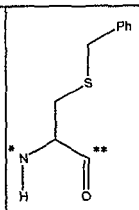
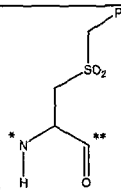
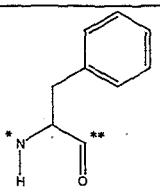
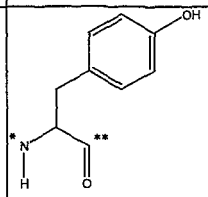
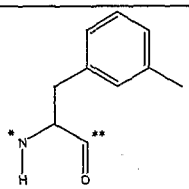
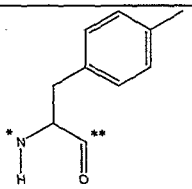
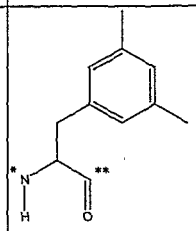
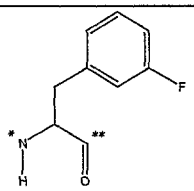
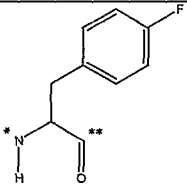
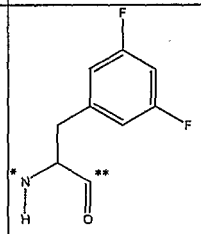
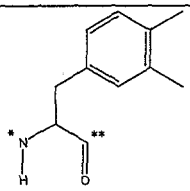
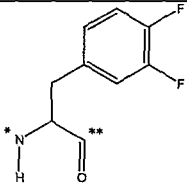
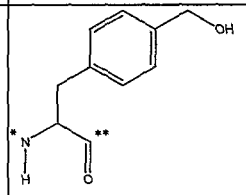
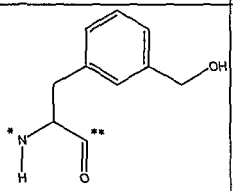
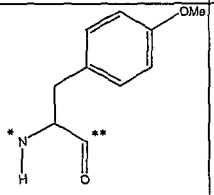
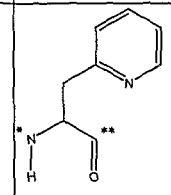
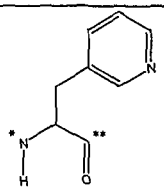
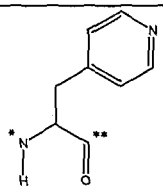
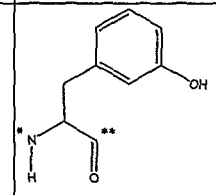
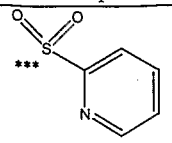
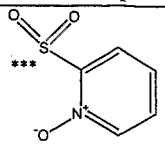
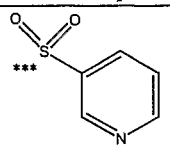
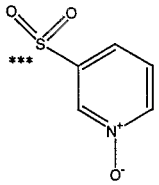
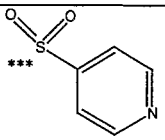
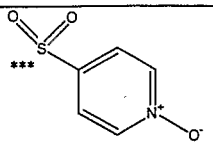
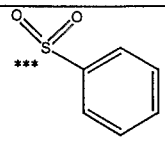
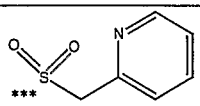
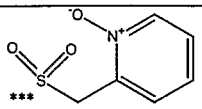
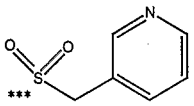
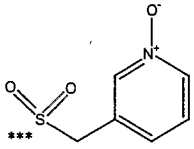
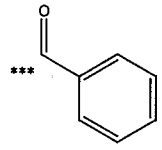
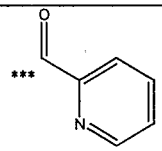
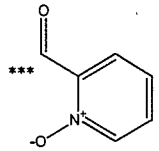
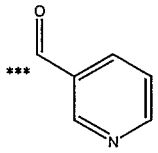
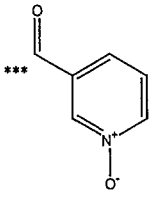
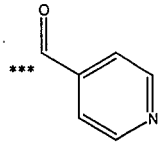
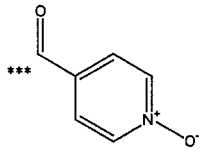
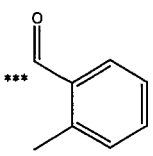
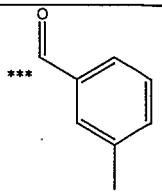
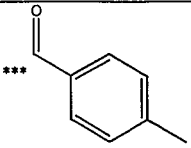
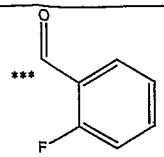
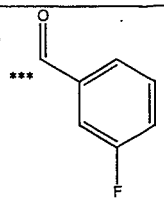
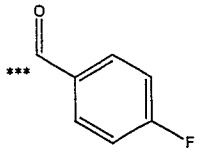
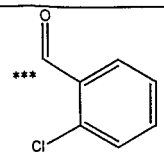
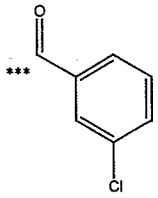
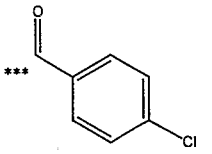
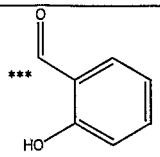
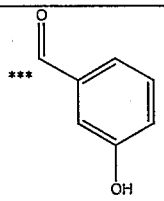
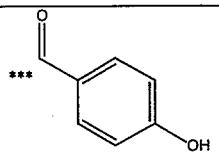
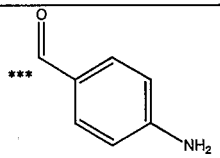
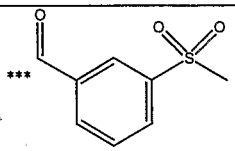
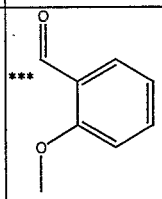
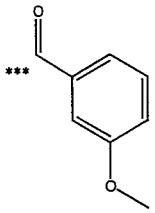
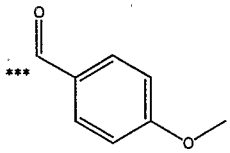
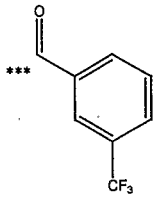
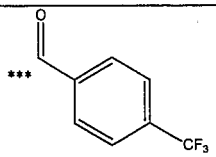
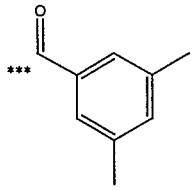
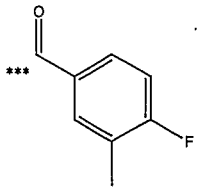
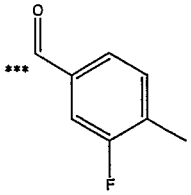
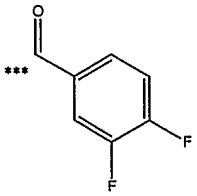
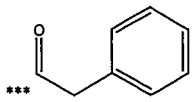
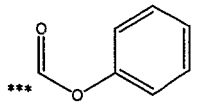
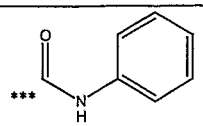
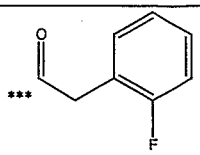
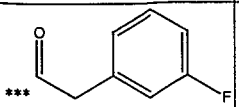
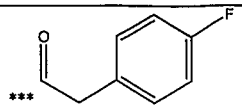
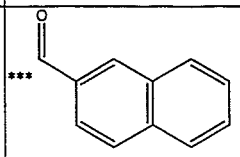
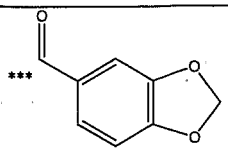
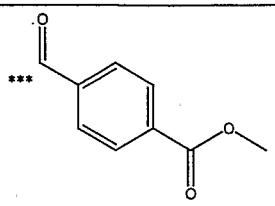
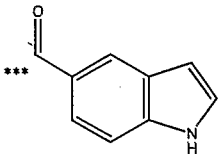
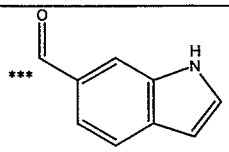
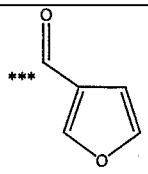
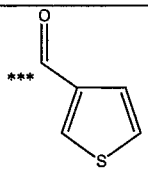
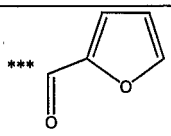
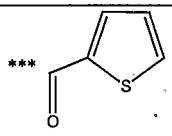
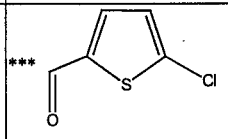
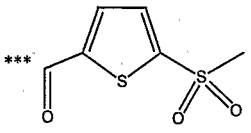
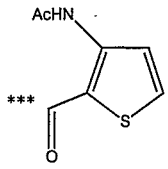
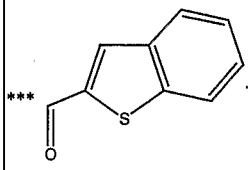
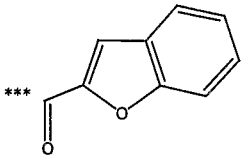
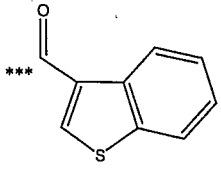
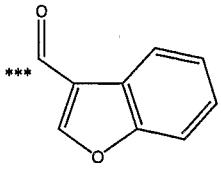
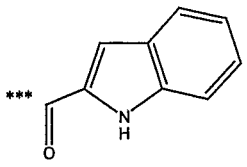
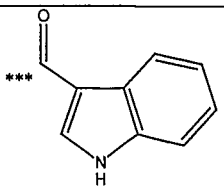
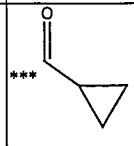
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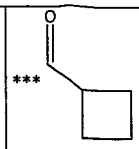
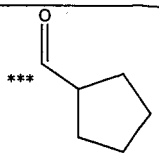
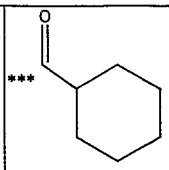
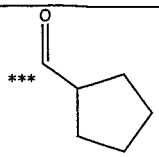
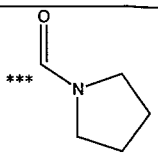
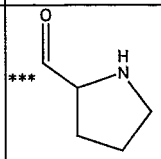
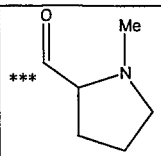
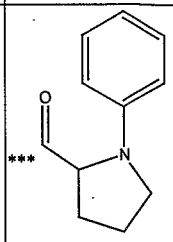
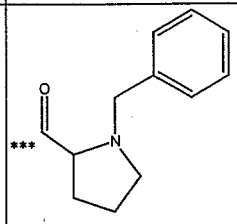
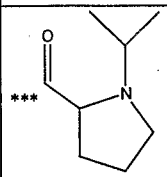
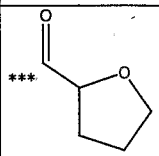
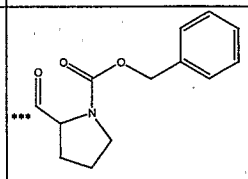
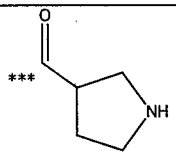
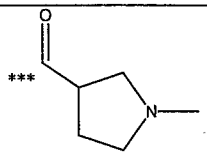
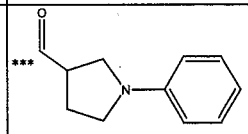
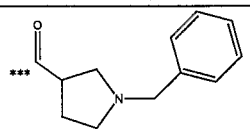
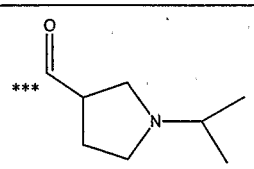
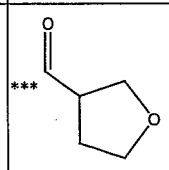
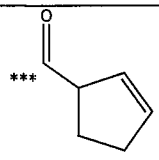
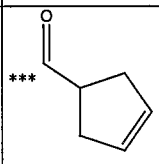
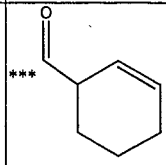
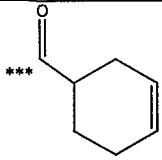
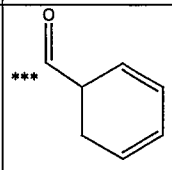
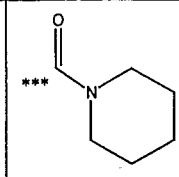
Table (3) 'Prime-side binding group Ps' Fragments

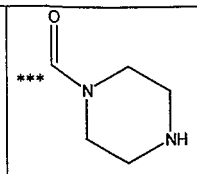
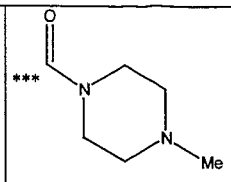
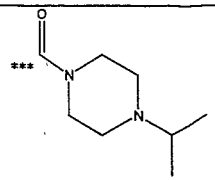
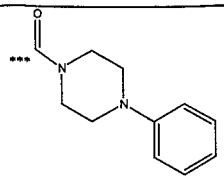
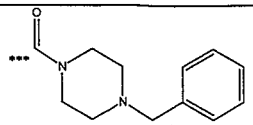
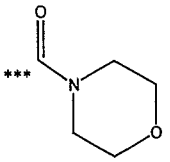
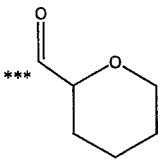
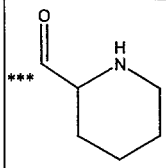
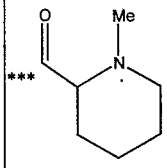
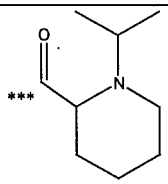
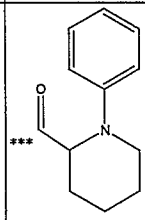
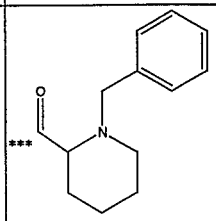
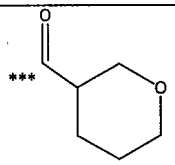
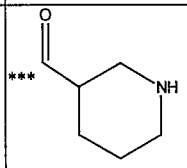
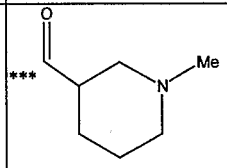
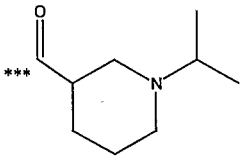
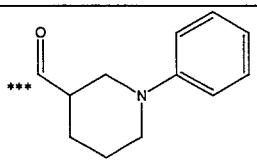
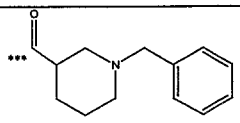
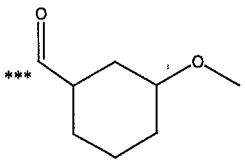
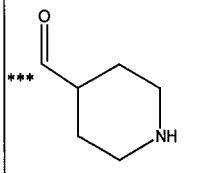
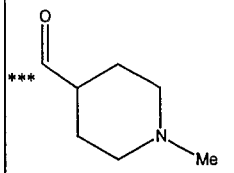
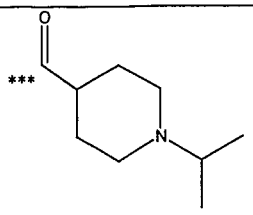
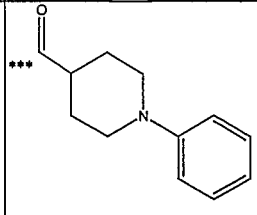
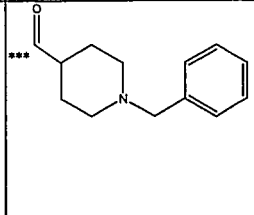
*** signifies the point of attachment of 'Ps groups' to 5,5-bicyclic scaffold.

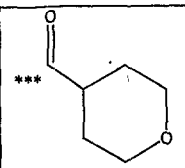
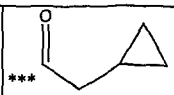
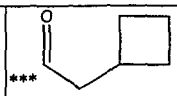
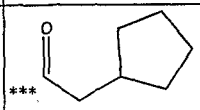
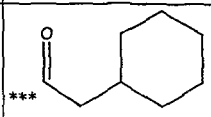
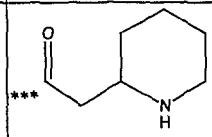
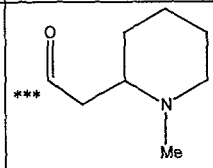
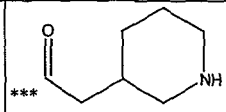
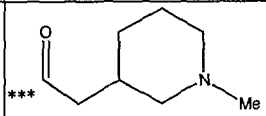
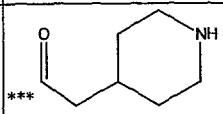
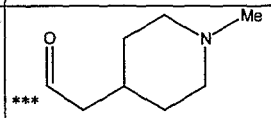
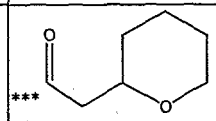
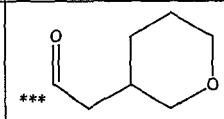
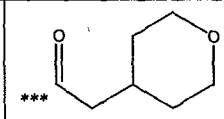
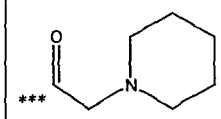
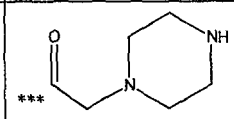
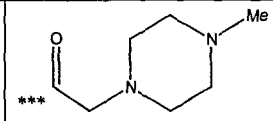
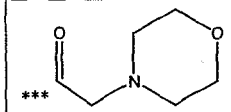
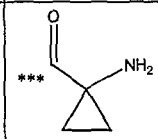
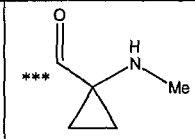
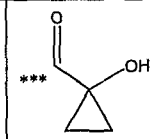
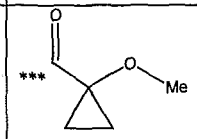
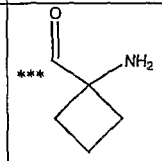
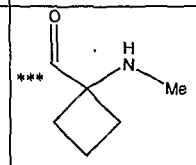
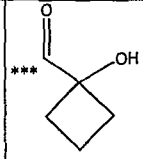
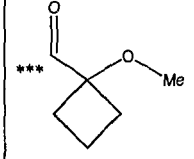
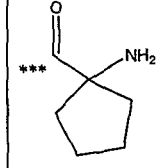
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Ps1		Ps2		Ps3	
Ps4		Ps5		Ps6	
Ps7		Ps8		Ps9	
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Ps13		Ps14		Ps15	
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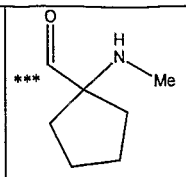
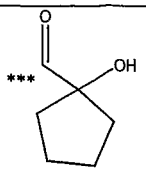
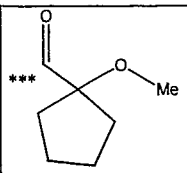
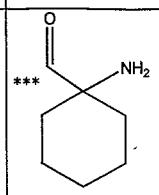
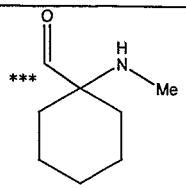
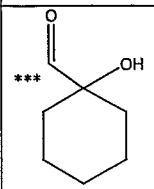
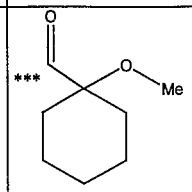
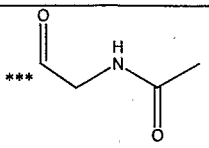
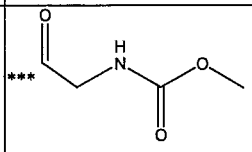
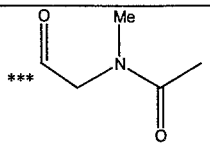
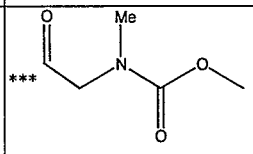
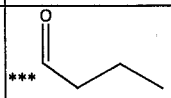
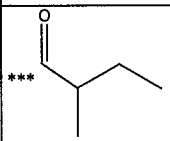
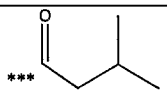
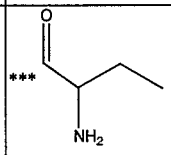
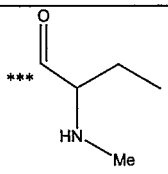
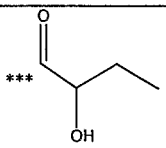
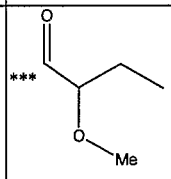
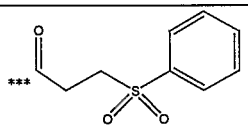
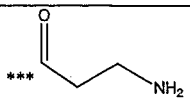
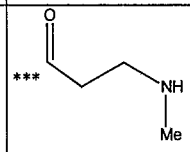
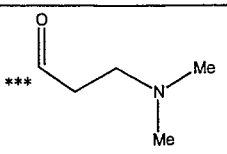
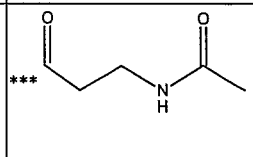
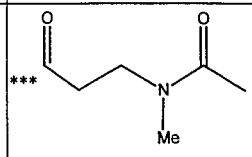
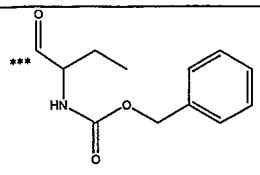
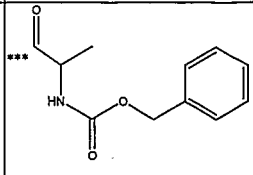
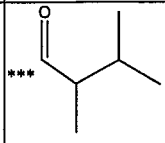
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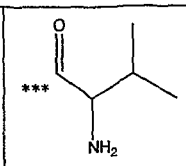
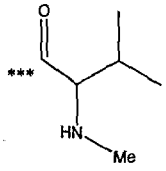
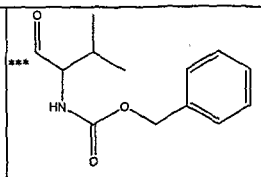
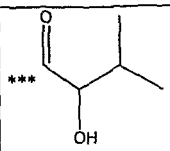
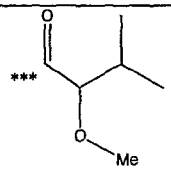
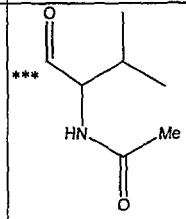
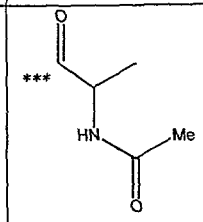
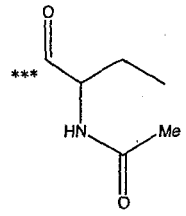
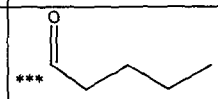
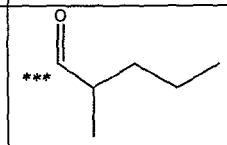
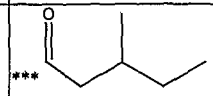
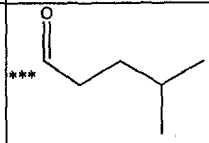
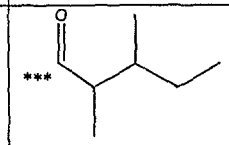
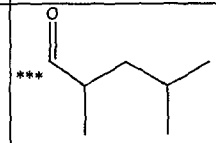
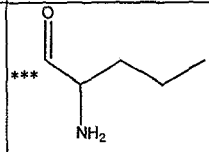
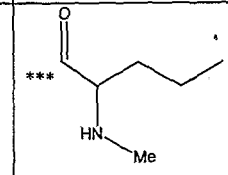
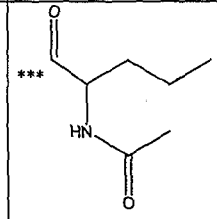
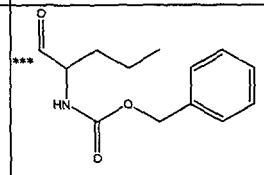
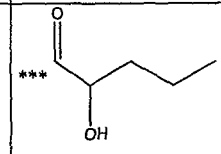
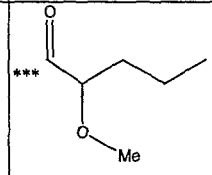
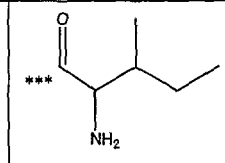
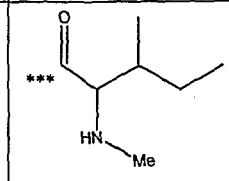
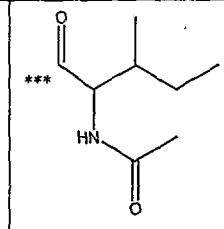
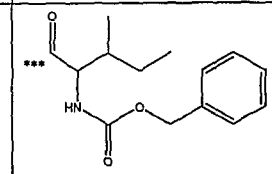
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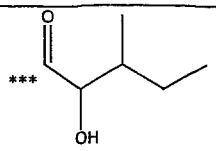
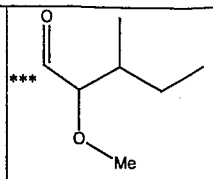
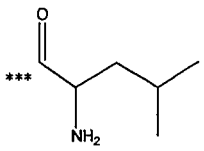
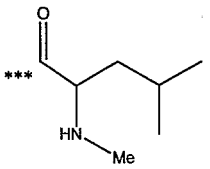
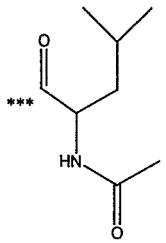
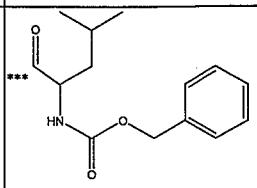
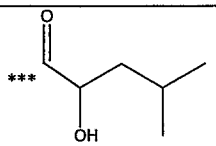
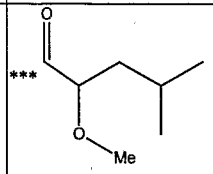
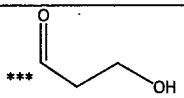
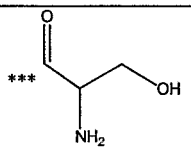
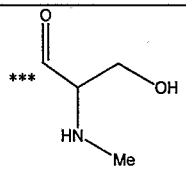
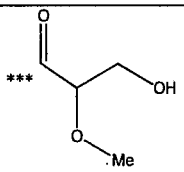
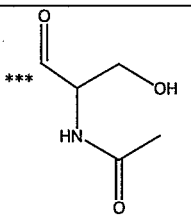
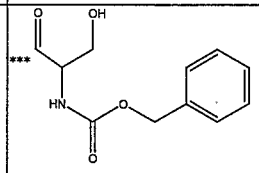
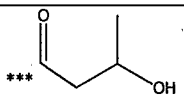
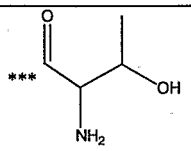
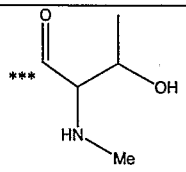
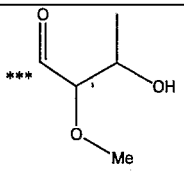
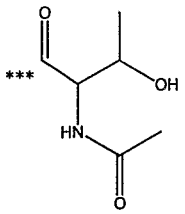
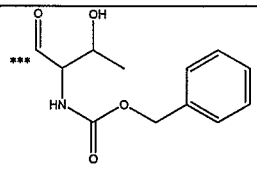
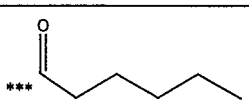
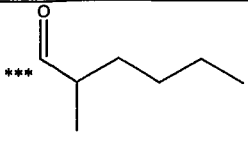
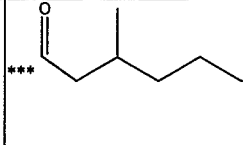
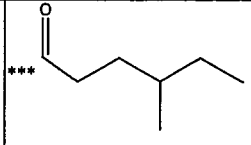
Ps67		Ps68		Ps69	
Ps70		Ps71		Ps72	
Ps73		Ps74		Ps75	
Ps76		Ps77		Ps78	
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Ps82		Ps83		Ps84	
Ps85		Ps86		Ps87	
Ps88		Ps89		Ps90	

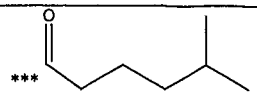
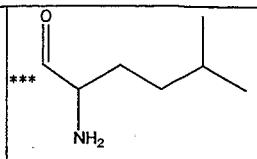
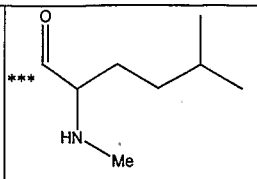
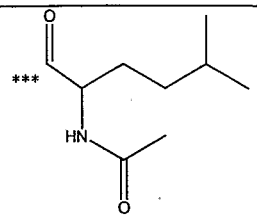
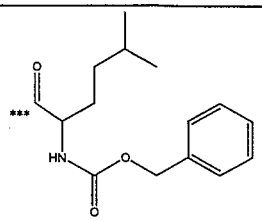
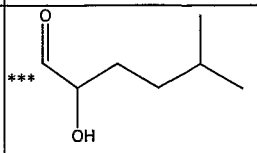
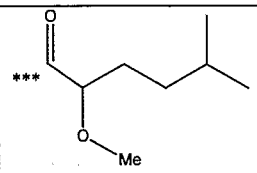
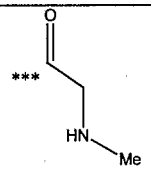
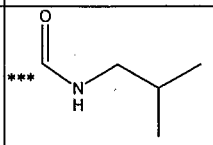
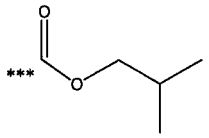
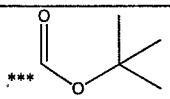
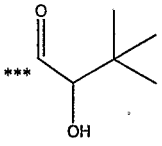
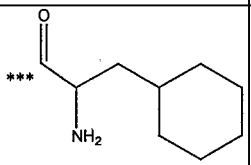
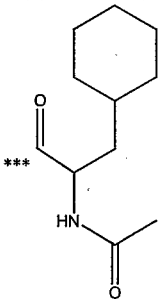
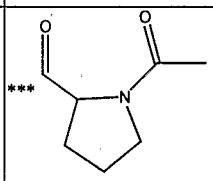
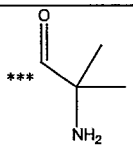
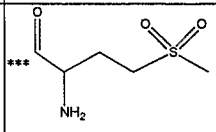
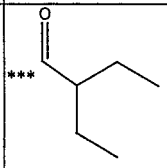
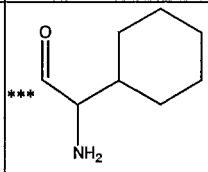
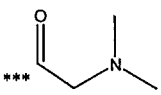
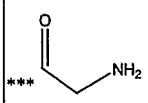
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Ps94		Ps95		Ps96	
Ps97		Ps98		Ps99	
Ps100		Ps101		Ps102	
Ps103		Ps104		Ps105	
Ps106		Ps107		Ps108	
Ps109		Ps110		Ps111	
Ps112		Ps113		Ps114	

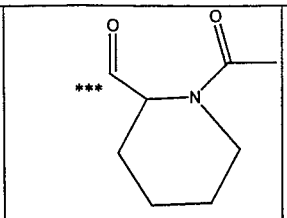
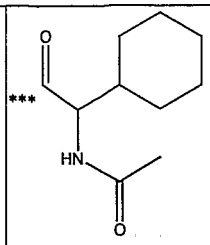
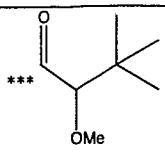
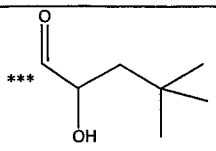
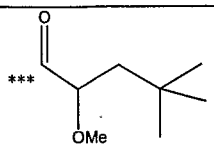
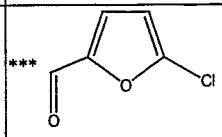
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Ps118		Ps119		Ps120	
Ps121		Ps122		Ps123	
Ps124		Ps125		Ps126	
Ps127		Ps128		Ps129	
Ps130		Ps131		Ps132	
Ps133		Ps134		Ps135	
Ps136		Ps137		Ps138	
Ps139		Ps140		Ps141	

Ps142		Ps143		Ps144	
Ps145		Ps146		Ps147	
Ps148		Ps149		Ps150	
Ps151		Ps152		Ps153	
Ps154		Ps155		Ps156	
Ps157		Ps158		Ps159	
Ps160		Ps161		Ps162	
Ps163		Ps164		Ps165	
Ps166		Ps167		Ps168	

Ps169		Ps170		Ps171	
Ps172		Ps173		Ps174	
Ps175		Ps176		Ps177	
Ps178		Ps179		Ps180	
Ps181		Ps182		Ps183	
Ps184		Ps185		Ps186	
Ps187		Ps188		Ps189	
Ps190		Ps191		Ps192	

Ps193		Ps194		Ps195	
Ps196		Ps197		Ps198	
Ps199		Ps200		Ps201	
Ps202		Ps203		Ps204	
Ps205		Ps206		Ps207	
Ps208		Ps209		Ps210	
Ps211		Ps212		Ps213	
Ps214		Ps215		Ps216	

Ps217		Ps218		Ps219	
Ps220		Ps221		Ps222	
Ps223		Ps224		Ps225	
Ps226		Ps227		Ps228	
Ps229		Ps230		Ps231	
Ps232		Ps233		Ps234	
Ps235		Ps236		Ps237	

Ps238		Ps239		Ps240	
Ps241		Ps242		Ps243	

Particularly preferred compounds of the invention are inhibitors of cathepsin K and include but are not limited to the compounds formed by the following Cg-Pg-Ps combinations;

Cg5–Pg1–Ps1	Cg5–Pg1–Ps2	Cg5–Pg1–Ps3	Cg5–Pg1–Ps4
Cg5–Pg1–Ps5	Cg5–Pg1–Ps6	Cg5–Pg1–Ps7	Cg5–Pg1–Ps8
Cg5–Pg1–Ps9	Cg5–Pg1–Ps10	Cg5–Pg1–Ps11	Cg5–Pg1–Ps12
Cg5–Pg1–Ps13	Cg5–Pg1–Ps14	Cg5–Pg1–Ps15	Cg5–Pg1–Ps16
Cg5–Pg1–Ps17	Cg5–Pg1–Ps18	Cg5–Pg1–Ps19	Cg5–Pg1–Ps20
Cg5–Pg1–Ps21	Cg5–Pg1–Ps22	Cg5–Pg1–Ps23	Cg5–Pg1–Ps24
Cg5–Pg1–Ps25	Cg5–Pg1–Ps26	Cg5–Pg1–Ps27	Cg5–Pg1–Ps28
Cg5–Pg1–Ps29	Cg5–Pg1–Ps30	Cg5–Pg1–Ps31	Cg5–Pg1–Ps32
Cg5–Pg1–Ps33	Cg5–Pg1–Ps34	Cg5–Pg1–Ps35	Cg5–Pg1–Ps36
Cg5–Pg1–Ps37	Cg5–Pg1–Ps38	Cg5–Pg1–Ps39	Cg5–Pg1–Ps40
Cg5–Pg1–Ps41	Cg5–Pg1–Ps42	Cg5–Pg1–Ps43	Cg5–Pg1–Ps44
Cg5–Pg1–Ps45	Cg5–Pg1–Ps46	Cg5–Pg1–Ps47	Cg5–Pg1–Ps48
Cg5–Pg1–Ps49	Cg5–Pg1–Ps50	Cg5–Pg1–Ps51	Cg5–Pg1–Ps52
Cg5–Pg1–Ps53	Cg5–Pg1–Ps54	Cg5–Pg1–Ps55	Cg5–Pg1–Ps56
Cg5–Pg1–Ps57	Cg5–Pg1–Ps58	Cg5–Pg1–Ps59	Cg5–Pg1–Ps60
Cg5–Pg1–Ps61	Cg5–Pg1–Ps62	Cg5–Pg1–Ps63	Cg5–Pg1–Ps64
Cg5–Pg1–Ps65	Cg5–Pg1–Ps66	Cg5–Pg1–Ps67	Cg5–Pg1–Ps68
Cg5–Pg1–Ps69	Cg5–Pg1–Ps70	Cg5–Pg1–Ps71	Cg5–Pg1–Ps72
Cg5–Pg1–Ps73	Cg5–Pg1–Ps74	Cg5–Pg1–Ps75	Cg5–Pg1–Ps76
Cg5–Pg1–Ps77	Cg5–Pg1–Ps78	Cg5–Pg1–Ps79	Cg5–Pg1–Ps80
Cg5–Pg1–Ps81	Cg5–Pg1–Ps82	Cg5–Pg1–Ps83	Cg5–Pg1–Ps84
Cg5–Pg1–Ps85	Cg5–Pg1–Ps86	Cg5–Pg1–Ps87	Cg5–Pg1–Ps88
Cg5–Pg1–Ps89	Cg5–Pg1–Ps90	Cg5–Pg1–Ps91	Cg5–Pg1–Ps92
Cg5–Pg1–Ps93	Cg5–Pg1–Ps94	Cg5–Pg1–Ps95	Cg5–Pg1–Ps96
Cg5–Pg1–Ps97	Cg5–Pg1–Ps98	Cg5–Pg1–Ps99	Cg5–Pg1–Ps100
Cg5–Pg1–Ps101	Cg5–Pg1–Ps102	Cg5–Pg1–Ps103	Cg5–Pg1–Ps104
Cg5–Pg1–Ps105	Cg5–Pg1–Ps106	Cg5–Pg1–Ps107	Cg5–Pg1–Ps108
Cg5–Pg1–Ps109	Cg5–Pg1–Ps110	Cg5–Pg1–Ps111	Cg5–Pg1–Ps112
Cg5–Pg1–Ps113	Cg5–Pg1–Ps114	Cg5–Pg1–Ps115	Cg5–Pg1–Ps116
Cg5–Pg1–Ps117	Cg5–Pg1–Ps118	Cg5–Pg1–Ps119	Cg5–Pg1–Ps120

	Cg5–Pg1–Ps121	Cg5–Pg1–Ps122	Cg5–Pg1–Ps123	Cg5–Pg1–Ps124
	Cg5–Pg1–Ps125	Cg5–Pg1–Ps126	Cg5–Pg1–Ps127	Cg5–Pg1–Ps128
	Cg5–Pg1–Ps129	Cg5–Pg1–Ps130	Cg5–Pg1–Ps131	Cg5–Pg1–Ps132
	Cg5–Pg1–Ps133	Cg5–Pg1–Ps134	Cg5–Pg1–Ps135	Cg5–Pg1–Ps136
5	Cg5–Pg1–Ps137	Cg5–Pg1–Ps138	Cg5–Pg1–Ps139	Cg5–Pg1–Ps140
	Cg5–Pg1–Ps141	Cg5–Pg1–Ps142	Cg5–Pg1–Ps143	Cg5–Pg1–Ps144
	Cg5–Pg1–Ps145	Cg5–Pg1–Ps146	Cg5–Pg1–Ps147	Cg5–Pg1–Ps148
	Cg5–Pg1–Ps149	Cg5–Pg1–Ps150	Cg5–Pg1–Ps151	Cg5–Pg1–Ps152
	Cg5–Pg1–Ps153	Cg5–Pg1–Ps154	Cg5–Pg1–Ps155	Cg5–Pg1–Ps156
10	Cg5–Pg1–Ps157	Cg5–Pg1–Ps158	Cg5–Pg1–Ps159	Cg5–Pg1–Ps160
	Cg5–Pg1–Ps161	Cg5–Pg1–Ps162	Cg5–Pg1–Ps163	Cg5–Pg1–Ps164
	Cg5–Pg1–Ps165	Cg5–Pg1–Ps166	Cg5–Pg1–Ps167	Cg5–Pg1–Ps168
	Cg5–Pg1–Ps169	Cg5–Pg1–Ps170	Cg5–Pg1–Ps171	Cg5–Pg1–Ps172
	Cg5–Pg1–Ps173	Cg5–Pg1–Ps174	Cg5–Pg1–Ps175	Cg5–Pg1–Ps176
15	Cg5–Pg1–Ps177	Cg5–Pg1–Ps178	Cg5–Pg1–Ps179	Cg5–Pg1–Ps180
	Cg5–Pg1–Ps181	Cg5–Pg1–Ps182	Cg5–Pg1–Ps183	Cg5–Pg1–Ps184
	Cg5–Pg1–Ps185	Cg5–Pg1–Ps186	Cg5–Pg1–Ps187	Cg5–Pg1–Ps188
	Cg5–Pg1–Ps189	Cg5–Pg1–Ps190	Cg5–Pg1–Ps191	Cg5–Pg1–Ps192
	Cg5–Pg1–Ps193	Cg5–Pg1–Ps194	Cg5–Pg1–Ps195	Cg5–Pg1–Ps196
20	Cg5–Pg1–Ps197	Cg5–Pg1–Ps198	Cg5–Pg1–Ps199	Cg5–Pg1–Ps200
	Cg5–Pg1–Ps201	Cg5–Pg1–Ps202	Cg5–Pg1–Ps203	Cg5–Pg1–Ps204
	Cg5–Pg1–Ps205	Cg5–Pg1–Ps206	Cg5–Pg1–Ps207	Cg5–Pg1–Ps208
	Cg5–Pg1–Ps209	Cg5–Pg1–Ps210	Cg5–Pg1–Ps211	Cg5–Pg1–Ps212
	Cg5–Pg1–Ps213	Cg5–Pg1–Ps214	Cg5–Pg1–Ps215	Cg5–Pg1–Ps216
25	Cg5–Pg1–Ps217	Cg5–Pg1–Ps218	Cg5–Pg1–Ps219	Cg5–Pg1–Ps220
	Cg5–Pg1–Ps221	Cg5–Pg1–Ps222	Cg5–Pg1–Ps223	Cg5–Pg1–Ps224
	Cg5–Pg1–Ps225	Cg5–Pg1–Ps226	Cg5–Pg1–Ps227	Cg5–Pg1–Ps228
	Cg5–Pg1–Ps229	Cg5–Pg1–Ps230	Cg5–Pg1–Ps231	Cg5–Pg1–Ps232
	Cg5–Pg1–Ps233	Cg5–Pg1–Ps234	Cg5–Pg1–Ps235	Cg5–Pg1–Ps236
30	Cg5–Pg1–Ps237	Cg5–Pg1–Ps238	Cg5–Pg1–Ps239	Cg5–Pg1–Ps240
	Cg5–Pg1–Ps241	Cg5–Pg1–Ps242	Cg5–Pg1–Ps243	
	Cg6–Pg1–Ps1	Cg6–Pg1–Ps2	Cg6–Pg1–Ps3	Cg6–Pg1–Ps4
	Cg6–Pg1–Ps5	Cg6–Pg1–Ps6	Cg6–Pg1–Ps7	Cg6–Pg1–Ps8
35	Cg6–Pg1–Ps9	Cg6–Pg1–Ps10	Cg6–Pg1–Ps11	Cg6–Pg1–Ps12
	Cg6–Pg1–Ps13	Cg6–Pg1–Ps14	Cg6–Pg1–Ps15	Cg6–Pg1–Ps16
	Cg6–Pg1–Ps17	Cg6–Pg1–Ps18	Cg6–Pg1–Ps19	Cg6–Pg1–Ps20
	Cg6–Pg1–Ps21	Cg6–Pg1–Ps22	Cg6–Pg1–Ps23	Cg6–Pg1–Ps24
	Cg6–Pg1–Ps25	Cg6–Pg1–Ps26	Cg6–Pg1–Ps27	Cg6–Pg1–Ps28
40	Cg6–Pg1–Ps29	Cg6–Pg1–Ps30	Cg6–Pg1–Ps31	Cg6–Pg1–Ps32
	Cg6–Pg1–Ps33	Cg6–Pg1–Ps34	Cg6–Pg1–Ps35	Cg6–Pg1–Ps36
	Cg6–Pg1–Ps37	Cg6–Pg1–Ps38	Cg6–Pg1–Ps39	Cg6–Pg1–Ps40
	Cg6–Pg1–Ps41	Cg6–Pg1–Ps42	Cg6–Pg1–Ps43	Cg6–Pg1–Ps44
	Cg6–Pg1–Ps45	Cg6–Pg1–Ps46	Cg6–Pg1–Ps47	Cg6–Pg1–Ps48
45	Cg6–Pg1–Ps49	Cg6–Pg1–Ps50	Cg6–Pg1–Ps51	Cg6–Pg1–Ps52
	Cg6–Pg1–Ps53	Cg6–Pg1–Ps54	Cg6–Pg1–Ps55	Cg6–Pg1–Ps56
	Cg6–Pg1–Ps57	Cg6–Pg1–Ps58	Cg6–Pg1–Ps59	Cg6–Pg1–Ps60
	Cg6–Pg1–Ps61	Cg6–Pg1–Ps62	Cg6–Pg1–Ps63	Cg6–Pg1–Ps64
	Cg6–Pg1–Ps65	Cg6–Pg1–Ps66	Cg6–Pg1–Ps67	Cg6–Pg1–Ps68
50	Cg6–Pg1–Ps69	Cg6–Pg1–Ps70	Cg6–Pg1–Ps71	Cg6–Pg1–Ps72
	Cg6–Pg1–Ps73	Cg6–Pg1–Ps74	Cg6–Pg1–Ps75	Cg6–Pg1–Ps76
	Cg6–Pg1–Ps77	Cg6–Pg1–Ps78	Cg6–Pg1–Ps79	Cg6–Pg1–Ps80

	Cg6–Pg1–Ps81	Cg6–Pg1–Ps82	Cg6–Pg1–Ps83	Cg6–Pg1–Ps84
	Cg6–Pg1–Ps85	Cg6–Pg1–Ps86	Cg6–Pg1–Ps87	Cg6–Pg1–Ps88
	Cg6–Pg1–Ps89	Cg6–Pg1–Ps90	Cg6–Pg1–Ps91	Cg6–Pg1–Ps92
	Cg6–Pg1–Ps93	Cg6–Pg1–Ps94	Cg6–Pg1–Ps95	Cg6–Pg1–Ps96
5	Cg6–Pg1–Ps97	Cg6–Pg1–Ps98	Cg6–Pg1–Ps99	Cg6–Pg1–Ps100
	Cg6–Pg1–Ps101	Cg6–Pg1–Ps102	Cg6–Pg1–Ps103	Cg6–Pg1–Ps104
	Cg6–Pg1–Ps105	Cg6–Pg1–Ps106	Cg6–Pg1–Ps107	Cg6–Pg1–Ps108
	Cg6–Pg1–Ps109	Cg6–Pg1–Ps110	Cg6–Pg1–Ps111	Cg6–Pg1–Ps112
	Cg6–Pg1–Ps113	Cg6–Pg1–Ps114	Cg6–Pg1–Ps115	Cg6–Pg1–Ps116
10	Cg6–Pg1–Ps117	Cg6–Pg1–Ps118	Cg6–Pg1–Ps119	Cg6–Pg1–Ps120
	Cg6–Pg1–Ps121	Cg6–Pg1–Ps122	Cg6–Pg1–Ps123	Cg6–Pg1–Ps124
	Cg6–Pg1–Ps125	Cg6–Pg1–Ps126	Cg6–Pg1–Ps127	Cg6–Pg1–Ps128
	Cg6–Pg1–Ps129	Cg6–Pg1–Ps130	Cg6–Pg1–Ps131	Cg6–Pg1–Ps132
	Cg6–Pg1–Ps133	Cg6–Pg1–Ps134	Cg6–Pg1–Ps135	Cg6–Pg1–Ps136
15	Cg6–Pg1–Ps137	Cg6–Pg1–Ps138	Cg6–Pg1–Ps139	Cg6–Pg1–Ps140
	Cg6–Pg1–Ps141	Cg6–Pg1–Ps142	Cg6–Pg1–Ps143	Cg6–Pg1–Ps144
	Cg6–Pg1–Ps145	Cg6–Pg1–Ps146	Cg6–Pg1–Ps147	Cg6–Pg1–Ps148
	Cg6–Pg1–Ps149	Cg6–Pg1–Ps150	Cg6–Pg1–Ps151	Cg6–Pg1–Ps152
	Cg6–Pg1–Ps153	Cg6–Pg1–Ps154	Cg6–Pg1–Ps155	Cg6–Pg1–Ps156
20	Cg6–Pg1–Ps157	Cg6–Pg1–Ps158	Cg6–Pg1–Ps159	Cg6–Pg1–Ps160
	Cg6–Pg1–Ps161	Cg6–Pg1–Ps162	Cg6–Pg1–Ps163	Cg6–Pg1–Ps164
	Cg6–Pg1–Ps165	Cg6–Pg1–Ps166	Cg6–Pg1–Ps167	Cg6–Pg1–Ps168
	Cg6–Pg1–Ps169	Cg6–Pg1–Ps170	Cg6–Pg1–Ps171	Cg6–Pg1–Ps172
	Cg6–Pg1–Ps173	Cg6–Pg1–Ps174	Cg6–Pg1–Ps175	Cg6–Pg1–Ps176
25	Cg6–Pg1–Ps177	Cg6–Pg1–Ps178	Cg6–Pg1–Ps179	Cg6–Pg1–Ps180
	Cg6–Pg1–Ps181	Cg6–Pg1–Ps182	Cg6–Pg1–Ps183	Cg6–Pg1–Ps184
	Cg6–Pg1–Ps185	Cg6–Pg1–Ps186	Cg6–Pg1–Ps187	Cg6–Pg1–Ps188
	Cg6–Pg1–Ps189	Cg6–Pg1–Ps190	Cg6–Pg1–Ps191	Cg6–Pg1–Ps192
	Cg6–Pg1–Ps193	Cg6–Pg1–Ps194	Cg6–Pg1–Ps195	Cg6–Pg1–Ps196
30	Cg6–Pg1–Ps197	Cg6–Pg1–Ps198	Cg6–Pg1–Ps199	Cg6–Pg1–Ps200
	Cg6–Pg1–Ps201	Cg6–Pg1–Ps202	Cg6–Pg1–Ps203	Cg6–Pg1–Ps204
	Cg6–Pg1–Ps205	Cg6–Pg1–Ps206	Cg6–Pg1–Ps207	Cg6–Pg1–Ps208
	Cg6–Pg1–Ps209	Cg6–Pg1–Ps210	Cg6–Pg1–Ps211	Cg6–Pg1–Ps212
	Cg6–Pg1–Ps213	Cg6–Pg1–Ps214	Cg6–Pg1–Ps215	Cg6–Pg1–Ps216
35	Cg6–Pg1–Ps217	Cg6–Pg1–Ps218	Cg6–Pg1–Ps219	Cg6–Pg1–Ps220
	Cg6–Pg1–Ps221	Cg6–Pg1–Ps222	Cg6–Pg1–Ps223	Cg6–Pg1–Ps224
	Cg6–Pg1–Ps225	Cg6–Pg1–Ps226	Cg6–Pg1–Ps227	Cg6–Pg1–Ps228
	Cg6–Pg1–Ps229	Cg6–Pg1–Ps230	Cg6–Pg1–Ps231	Cg6–Pg1–Ps232
	Cg6–Pg1–Ps233	Cg6–Pg1–Ps234	Cg6–Pg1–Ps235	Cg6–Pg1–Ps236
40	Cg6–Pg1–Ps237	Cg6–Pg1–Ps238	Cg6–Pg1–Ps239	Cg6–Pg1–Ps240
	Cg6–Pg1–Ps241	Cg6–Pg1–Ps242	Cg6–Pg1–Ps243	
	Cg7–Pg1–Ps1	Cg7–Pg1–Ps2	Cg7–Pg1–Ps3	Cg7–Pg1–Ps4
	Cg7–Pg1–Ps5	Cg7–Pg1–Ps6	Cg7–Pg1–Ps7	Cg7–Pg1–Ps8
45	Cg7–Pg1–Ps9	Cg7–Pg1–Ps10	Cg7–Pg1–Ps11	Cg7–Pg1–Ps12
	Cg7–Pg1–Ps13	Cg7–Pg1–Ps14	Cg7–Pg1–Ps15	Cg7–Pg1–Ps16
	Cg7–Pg1–Ps17	Cg7–Pg1–Ps18	Cg7–Pg1–Ps19	Cg7–Pg1–Ps20
	Cg7–Pg1–Ps21	Cg7–Pg1–Ps22	Cg7–Pg1–Ps23	Cg7–Pg1–Ps24
	Cg7–Pg1–Ps25	Cg7–Pg1–Ps26	Cg7–Pg1–Ps27	Cg7–Pg1–Ps28
50	Cg7–Pg1–Ps29	Cg7–Pg1–Ps30	Cg7–Pg1–Ps31	Cg7–Pg1–Ps32
	Cg7–Pg1–Ps33	Cg7–Pg1–Ps34	Cg7–Pg1–Ps35	Cg7–Pg1–Ps36
	Cg7–Pg1–Ps37	Cg7–Pg1–Ps38	Cg7–Pg1–Ps39	Cg7–Pg1–Ps40

	Cg7–Pg1–Ps41	Cg7–Pg1–Ps42	Cg7–Pg1–Ps43	Cg7–Pg1–Ps44
	Cg7–Pg1–Ps45	Cg7–Pg1–Ps46	Cg7–Pg1–Ps47	Cg7–Pg1–Ps48
	Cg7–Pg1–Ps49	Cg7–Pg1–Ps50	Cg7–Pg1–Ps51	Cg7–Pg1–Ps52
	Cg7–Pg1–Ps53	Cg7–Pg1–Ps54	Cg7–Pg1–Ps55	Cg7–Pg1–Ps56
5	Cg7–Pg1–Ps57	Cg7–Pg1–Ps58	Cg7–Pg1–Ps59	Cg7–Pg1–Ps60
	Cg7–Pg1–Ps61	Cg7–Pg1–Ps62	Cg7–Pg1–Ps63	Cg7–Pg1–Ps64
	Cg7–Pg1–Ps65	Cg7–Pg1–Ps66	Cg7–Pg1–Ps67	Cg7–Pg1–Ps68
	Cg7–Pg1–Ps69	Cg7–Pg1–Ps70	Cg7–Pg1–Ps71	Cg7–Pg1–Ps72
	Cg7–Pg1–Ps73	Cg7–Pg1–Ps74	Cg7–Pg1–Ps75	Cg7–Pg1–Ps76
10	Cg7–Pg1–Ps77	Cg7–Pg1–Ps78	Cg7–Pg1–Ps79	Cg7–Pg1–Ps80
	Cg7–Pg1–Ps81	Cg7–Pg1–Ps82	Cg7–Pg1–Ps83	Cg7–Pg1–Ps84
	Cg7–Pg1–Ps85	Cg7–Pg1–Ps86	Cg7–Pg1–Ps87	Cg7–Pg1–Ps88
	Cg7–Pg1–Ps89	Cg7–Pg1–Ps90	Cg7–Pg1–Ps91	Cg7–Pg1–Ps92
	Cg7–Pg1–Ps93	Cg7–Pg1–Ps94	Cg7–Pg1–Ps95	Cg7–Pg1–Ps96
15	Cg7–Pg1–Ps97	Cg7–Pg1–Ps98	Cg7–Pg1–Ps99	Cg7–Pg1–Ps100
	Cg7–Pg1–Ps101	Cg7–Pg1–Ps102	Cg7–Pg1–Ps103	Cg7–Pg1–Ps104
	Cg7–Pg1–Ps105	Cg7–Pg1–Ps106	Cg7–Pg1–Ps107	Cg7–Pg1–Ps108
	Cg7–Pg1–Ps109	Cg7–Pg1–Ps110	Cg7–Pg1–Ps111	Cg7–Pg1–Ps112
	Cg7–Pg1–Ps113	Cg7–Pg1–Ps114	Cg7–Pg1–Ps115	Cg7–Pg1–Ps116
20	Cg7–Pg1–Ps117	Cg7–Pg1–Ps118	Cg7–Pg1–Ps119	Cg7–Pg1–Ps120
	Cg7–Pg1–Ps121	Cg7–Pg1–Ps122	Cg7–Pg1–Ps123	Cg7–Pg1–Ps124
	Cg7–Pg1–Ps125	Cg7–Pg1–Ps126	Cg7–Pg1–Ps127	Cg7–Pg1–Ps128
	Cg7–Pg1–Ps129	Cg7–Pg1–Ps130	Cg7–Pg1–Ps131	Cg7–Pg1–Ps132
	Cg7–Pg1–Ps133	Cg7–Pg1–Ps134	Cg7–Pg1–Ps135	Cg7–Pg1–Ps136
25	Cg7–Pg1–Ps137	Cg7–Pg1–Ps138	Cg7–Pg1–Ps139	Cg7–Pg1–Ps140
	Cg7–Pg1–Ps141	Cg7–Pg1–Ps142	Cg7–Pg1–Ps143	Cg7–Pg1–Ps144
	Cg7–Pg1–Ps145	Cg7–Pg1–Ps146	Cg7–Pg1–Ps147	Cg7–Pg1–Ps148
	Cg7–Pg1–Ps149	Cg7–Pg1–Ps150	Cg7–Pg1–Ps151	Cg7–Pg1–Ps152
	Cg7–Pg1–Ps153	Cg7–Pg1–Ps154	Cg7–Pg1–Ps155	Cg7–Pg1–Ps156
30	Cg7–Pg1–Ps157	Cg7–Pg1–Ps158	Cg7–Pg1–Ps159	Cg7–Pg1–Ps160
	Cg7–Pg1–Ps161	Cg7–Pg1–Ps162	Cg7–Pg1–Ps163	Cg7–Pg1–Ps164
	Cg7–Pg1–Ps165	Cg7–Pg1–Ps166	Cg7–Pg1–Ps167	Cg7–Pg1–Ps168
	Cg7–Pg1–Ps169	Cg7–Pg1–Ps170	Cg7–Pg1–Ps171	Cg7–Pg1–Ps172
	Cg7–Pg1–Ps173	Cg7–Pg1–Ps174	Cg7–Pg1–Ps175	Cg7–Pg1–Ps176
35	Cg7–Pg1–Ps177	Cg7–Pg1–Ps178	Cg7–Pg1–Ps179	Cg7–Pg1–Ps180
	Cg7–Pg1–Ps181	Cg7–Pg1–Ps182	Cg7–Pg1–Ps183	Cg7–Pg1–Ps184
	Cg7–Pg1–Ps185	Cg7–Pg1–Ps186	Cg7–Pg1–Ps187	Cg7–Pg1–Ps188
	Cg7–Pg1–Ps189	Cg7–Pg1–Ps190	Cg7–Pg1–Ps191	Cg7–Pg1–Ps192
	Cg7–Pg1–Ps193	Cg7–Pg1–Ps194	Cg7–Pg1–Ps195	Cg7–Pg1–Ps196
40	Cg7–Pg1–Ps197	Cg7–Pg1–Ps198	Cg7–Pg1–Ps199	Cg7–Pg1–Ps200
	Cg7–Pg1–Ps201	Cg7–Pg1–Ps202	Cg7–Pg1–Ps203	Cg7–Pg1–Ps204
	Cg7–Pg1–Ps205	Cg7–Pg1–Ps206	Cg7–Pg1–Ps207	Cg7–Pg1–Ps208
	Cg7–Pg1–Ps209	Cg7–Pg1–Ps210	Cg7–Pg1–Ps211	Cg7–Pg1–Ps212
	Cg7–Pg1–Ps213	Cg7–Pg1–Ps214	Cg7–Pg1–Ps215	Cg7–Pg1–Ps216
45	Cg7–Pg1–Ps217	Cg7–Pg1–Ps218	Cg7–Pg1–Ps219	Cg7–Pg1–Ps220
	Cg7–Pg1–Ps221	Cg7–Pg1–Ps222	Cg7–Pg1–Ps223	Cg7–Pg1–Ps224
	Cg7–Pg1–Ps225	Cg7–Pg1–Ps226	Cg7–Pg1–Ps227	Cg7–Pg1–Ps228
	Cg7–Pg1–Ps229	Cg7–Pg1–Ps230	Cg7–Pg1–Ps231	Cg7–Pg1–Ps232
	Cg7–Pg1–Ps233	Cg7–Pg1–Ps234	Cg7–Pg1–Ps235	Cg7–Pg1–Ps236
50	Cg7–Pg1–Ps237	Cg7–Pg1–Ps238	Cg7–Pg1–Ps239	Cg7–Pg1–Ps240
	Cg7–Pg1–Ps241	Cg7–Pg1–Ps242	Cg7–Pg1–Ps243	

Cg18–Pg1–Ps1	Cg18–Pg1–Ps2	Cg18–Pg1–Ps3	Cg18–Pg1–Ps4
Cg18–Pg1–Ps5	Cg18–Pg1–Ps6	Cg18–Pg1–Ps7	Cg18–Pg1–Ps8
Cg18–Pg1–Ps9	Cg18–Pg1–Ps10	Cg18–Pg1–Ps11	Cg18–Pg1–Ps12
Cg18–Pg1–Ps13	Cg18–Pg1–Ps14	Cg18–Pg1–Ps15	Cg18–Pg1–Ps16
Cg18–Pg1–Ps17	Cg18–Pg1–Ps18	Cg18–Pg1–Ps19	Cg18–Pg1–Ps20
Cg18–Pg1–Ps21	Cg18–Pg1–Ps22	Cg18–Pg1–Ps23	Cg18–Pg1–Ps24
Cg18–Pg1–Ps25	Cg18–Pg1–Ps26	Cg18–Pg1–Ps27	Cg18–Pg1–Ps28
Cg18–Pg1–Ps29	Cg18–Pg1–Ps30	Cg18–Pg1–Ps31	Cg18–Pg1–Ps32
Cg18–Pg1–Ps33	Cg18–Pg1–Ps34	Cg18–Pg1–Ps35	Cg18–Pg1–Ps36
Cg18–Pg1–Ps37	Cg18–Pg1–Ps38	Cg18–Pg1–Ps39	Cg18–Pg1–Ps40
Cg18–Pg1–Ps41	Cg18–Pg1–Ps42	Cg18–Pg1–Ps43	Cg18–Pg1–Ps44
Cg18–Pg1–Ps45	Cg18–Pg1–Ps46	Cg18–Pg1–Ps47	Cg18–Pg1–Ps48
Cg18–Pg1–Ps49	Cg18–Pg1–Ps50	Cg18–Pg1–Ps51	Cg18–Pg1–Ps52
Cg18–Pg1–Ps53	Cg18–Pg1–Ps54	Cg18–Pg1–Ps55	Cg18–Pg1–Ps56
Cg18–Pg1–Ps57	Cg18–Pg1–Ps58	Cg18–Pg1–Ps59	Cg18–Pg1–Ps60
Cg18–Pg1–Ps61	Cg18–Pg1–Ps62	Cg18–Pg1–Ps63	Cg18–Pg1–Ps64
Cg18–Pg1–Ps65	Cg18–Pg1–Ps66	Cg18–Pg1–Ps67	Cg18–Pg1–Ps68
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Cg18–Pg1–Ps77	Cg18–Pg1–Ps78	Cg18–Pg1–Ps79	Cg18–Pg1–Ps80
Cg18–Pg1–Ps81	Cg18–Pg1–Ps82	Cg18–Pg1–Ps83	Cg18–Pg1–Ps84
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Cg18–Pg1–Ps89	Cg18–Pg1–Ps90	Cg18–Pg1–Ps91	Cg18–Pg1–Ps92
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Cg18–Pg1–Ps105	Cg18–Pg1–Ps106	Cg18–Pg1–Ps107	Cg18–Pg1–Ps108
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Cg18–Pg1–Ps113	Cg18–Pg1–Ps114	Cg18–Pg1–Ps115	Cg18–Pg1–Ps116
Cg18–Pg1–Ps117	Cg18–Pg1–Ps118	Cg18–Pg1–Ps119	Cg18–Pg1–Ps120
Cg18–Pg1–Ps121	Cg18–Pg1–Ps122	Cg18–Pg1–Ps123	Cg18–Pg1–Ps124
Cg18–Pg1–Ps125	Cg18–Pg1–Ps126	Cg18–Pg1–Ps127	Cg18–Pg1–Ps128
Cg18–Pg1–Ps129	Cg18–Pg1–Ps130	Cg18–Pg1–Ps131	Cg18–Pg1–Ps132
Cg18–Pg1–Ps133	Cg18–Pg1–Ps134	Cg18–Pg1–Ps135	Cg18–Pg1–Ps136
Cg18–Pg1–Ps137	Cg18–Pg1–Ps138	Cg18–Pg1–Ps139	Cg18–Pg1–Ps140
Cg18–Pg1–Ps141	Cg18–Pg1–Ps142	Cg18–Pg1–Ps143	Cg18–Pg1–Ps144
Cg18–Pg1–Ps145	Cg18–Pg1–Ps146	Cg18–Pg1–Ps147	Cg18–Pg1–Ps148
Cg18–Pg1–Ps149	Cg18–Pg1–Ps150	Cg18–Pg1–Ps151	Cg18–Pg1–Ps152
Cg18–Pg1–Ps153	Cg18–Pg1–Ps154	Cg18–Pg1–Ps155	Cg18–Pg1–Ps156
Cg18–Pg1–Ps157	Cg18–Pg1–Ps158	Cg18–Pg1–Ps159	Cg18–Pg1–Ps160
Cg18–Pg1–Ps161	Cg18–Pg1–Ps162	Cg18–Pg1–Ps163	Cg18–Pg1–Ps164
Cg18–Pg1–Ps165	Cg18–Pg1–Ps166	Cg18–Pg1–Ps167	Cg18–Pg1–Ps168
Cg18–Pg1–Ps169	Cg18–Pg1–Ps170	Cg18–Pg1–Ps171	Cg18–Pg1–Ps172
Cg18–Pg1–Ps173	Cg18–Pg1–Ps174	Cg18–Pg1–Ps175	Cg18–Pg1–Ps176
Cg18–Pg1–Ps177	Cg18–Pg1–Ps178	Cg18–Pg1–Ps179	Cg18–Pg1–Ps180
Cg18–Pg1–Ps181	Cg18–Pg1–Ps182	Cg18–Pg1–Ps183	Cg18–Pg1–Ps184
Cg18–Pg1–Ps185	Cg18–Pg1–Ps186	Cg18–Pg1–Ps187	Cg18–Pg1–Ps188
Cg18–Pg1–Ps189	Cg18–Pg1–Ps190	Cg18–Pg1–Ps191	Cg18–Pg1–Ps192
Cg18–Pg1–Ps193	Cg18–Pg1–Ps194	Cg18–Pg1–Ps195	Cg18–Pg1–Ps196
Cg18–Pg1–Ps197	Cg18–Pg1–Ps198	Cg18–Pg1–Ps199	Cg18–Pg1–Ps200
Cg18–Pg1–Ps201	Cg18–Pg1–Ps202	Cg18–Pg1–Ps203	Cg18–Pg1–Ps204

	Cg18–Pg1–Ps205	Cg18–Pg1–Ps206	Cg18–Pg1–Ps207	Cg18–Pg1–Ps208
	Cg18–Pg1–Ps209	Cg18–Pg1–Ps210	Cg18–Pg1–Ps211	Cg18–Pg1–Ps212
	Cg18–Pg1–Ps213	Cg18–Pg1–Ps214	Cg18–Pg1–Ps215	Cg18–Pg1–Ps216
	Cg18–Pg1–Ps217	Cg18–Pg1–Ps218	Cg18–Pg1–Ps219	Cg18–Pg1–Ps220
5	Cg18–Pg1–Ps221	Cg18–Pg1–Ps222	Cg18–Pg1–Ps223	Cg18–Pg1–Ps224
	Cg18–Pg1–Ps225	Cg18–Pg1–Ps226	Cg18–Pg1–Ps227	Cg18–Pg1–Ps228
	Cg18–Pg1–Ps229	Cg18–Pg1–Ps230	Cg18–Pg1–Ps231	Cg18–Pg1–Ps232
	Cg18–Pg1–Ps233	Cg18–Pg1–Ps234	Cg18–Pg1–Ps235	Cg18–Pg1–Ps236
	Cg18–Pg1–Ps237	Cg18–Pg1–Ps238	Cg18–Pg1–Ps239	Cg18–Pg1–Ps240
10	Cg18–Pg1–Ps241	Cg18–Pg1–Ps242	Cg18–Pg1–Ps243	
	Cg21–Pg1–Ps1	Cg21–Pg1–Ps2	Cg21–Pg1–Ps3	Cg21–Pg1–Ps4
	Cg21–Pg1–Ps5	Cg21–Pg1–Ps6	Cg21–Pg1–Ps7	Cg21–Pg1–Ps8
	Cg21–Pg1–Ps9	Cg21–Pg1–Ps10	Cg21–Pg1–Ps11	Cg21–Pg1–Ps12
15	Cg21–Pg1–Ps13	Cg21–Pg1–Ps14	Cg21–Pg1–Ps15	Cg21–Pg1–Ps16
	Cg21–Pg1–Ps17	Cg21–Pg1–Ps18	Cg21–Pg1–Ps19	Cg21–Pg1–Ps20
	Cg21–Pg1–Ps21	Cg21–Pg1–Ps22	Cg21–Pg1–Ps23	Cg21–Pg1–Ps24
	Cg21–Pg1–Ps25	Cg21–Pg1–Ps26	Cg21–Pg1–Ps27	Cg21–Pg1–Ps28
	Cg21–Pg1–Ps29	Cg21–Pg1–Ps30	Cg21–Pg1–Ps31	Cg21–Pg1–Ps32
20	Cg21–Pg1–Ps33	Cg21–Pg1–Ps34	Cg21–Pg1–Ps35	Cg21–Pg1–Ps36
	Cg21–Pg1–Ps37	Cg21–Pg1–Ps38	Cg21–Pg1–Ps39	Cg21–Pg1–Ps40
	Cg21–Pg1–Ps41	Cg21–Pg1–Ps42	Cg21–Pg1–Ps43	Cg21–Pg1–Ps44
	Cg21–Pg1–Ps45	Cg21–Pg1–Ps46	Cg21–Pg1–Ps47	Cg21–Pg1–Ps48
	Cg21–Pg1–Ps49	Cg21–Pg1–Ps50	Cg21–Pg1–Ps51	Cg21–Pg1–Ps52
25	Cg21–Pg1–Ps53	Cg21–Pg1–Ps54	Cg21–Pg1–Ps55	Cg21–Pg1–Ps56
	Cg21–Pg1–Ps57	Cg21–Pg1–Ps58	Cg21–Pg1–Ps59	Cg21–Pg1–Ps60
	Cg21–Pg1–Ps61	Cg21–Pg1–Ps62	Cg21–Pg1–Ps63	Cg21–Pg1–Ps64
	Cg21–Pg1–Ps65	Cg21–Pg1–Ps66	Cg21–Pg1–Ps67	Cg21–Pg1–Ps68
	Cg21–Pg1–Ps69	Cg21–Pg1–Ps70	Cg21–Pg1–Ps71	Cg21–Pg1–Ps72
30	Cg21–Pg1–Ps73	Cg21–Pg1–Ps74	Cg21–Pg1–Ps75	Cg21–Pg1–Ps76
	Cg21–Pg1–Ps77	Cg21–Pg1–Ps78	Cg21–Pg1–Ps79	Cg21–Pg1–Ps80
	Cg21–Pg1–Ps81	Cg21–Pg1–Ps82	Cg21–Pg1–Ps83	Cg21–Pg1–Ps84
	Cg21–Pg1–Ps85	Cg21–Pg1–Ps86	Cg21–Pg1–Ps87	Cg21–Pg1–Ps88
	Cg21–Pg1–Ps89	Cg21–Pg1–Ps90	Cg21–Pg1–Ps91	Cg21–Pg1–Ps92
35	Cg21–Pg1–Ps93	Cg21–Pg1–Ps94	Cg21–Pg1–Ps95	Cg21–Pg1–Ps96
	Cg21–Pg1–Ps97	Cg21–Pg1–Ps98	Cg21–Pg1–Ps99	Cg21–Pg1–Ps100
	Cg21–Pg1–Ps101	Cg21–Pg1–Ps102	Cg21–Pg1–Ps103	Cg21–Pg1–Ps104
	Cg21–Pg1–Ps105	Cg21–Pg1–Ps106	Cg21–Pg1–Ps107	Cg21–Pg1–Ps108
	Cg21–Pg1–Ps109	Cg21–Pg1–Ps110	Cg21–Pg1–Ps111	Cg21–Pg1–Ps112
40	Cg21–Pg1–Ps113	Cg21–Pg1–Ps114	Cg21–Pg1–Ps115	Cg21–Pg1–Ps116
	Cg21–Pg1–Ps117	Cg21–Pg1–Ps118	Cg21–Pg1–Ps119	Cg21–Pg1–Ps120
	Cg21–Pg1–Ps121	Cg21–Pg1–Ps122	Cg21–Pg1–Ps123	Cg21–Pg1–Ps124
	Cg21–Pg1–Ps125	Cg21–Pg1–Ps126	Cg21–Pg1–Ps127	Cg21–Pg1–Ps128
	Cg21–Pg1–Ps129	Cg21–Pg1–Ps130	Cg21–Pg1–Ps131	Cg21–Pg1–Ps132
45	Cg21–Pg1–Ps133	Cg21–Pg1–Ps134	Cg21–Pg1–Ps135	Cg21–Pg1–Ps136
	Cg21–Pg1–Ps137	Cg21–Pg1–Ps138	Cg21–Pg1–Ps139	Cg21–Pg1–Ps140
	Cg21–Pg1–Ps141	Cg21–Pg1–Ps142	Cg21–Pg1–Ps143	Cg21–Pg1–Ps144
	Cg21–Pg1–Ps145	Cg21–Pg1–Ps146	Cg21–Pg1–Ps147	Cg21–Pg1–Ps148
	Cg21–Pg1–Ps149	Cg21–Pg1–Ps150	Cg21–Pg1–Ps151	Cg21–Pg1–Ps152
50	Cg21–Pg1–Ps153	Cg21–Pg1–Ps154	Cg21–Pg1–Ps155	Cg21–Pg1–Ps156
	Cg21–Pg1–Ps157	Cg21–Pg1–Ps158	Cg21–Pg1–Ps159	Cg21–Pg1–Ps160
	Cg21–Pg1–Ps161	Cg21–Pg1–Ps162	Cg21–Pg1–Ps163	Cg21–Pg1–Ps164

	Cg21–Pg1–Ps165	Cg21–Pg1–Ps166	Cg21–Pg1–Ps167	Cg21–Pg1–Ps168
	Cg21–Pg1–Ps169	Cg21–Pg1–Ps170	Cg21–Pg1–Ps171	Cg21–Pg1–Ps172
	Cg21–Pg1–Ps173	Cg21–Pg1–Ps174	Cg21–Pg1–Ps175	Cg21–Pg1–Ps176
	Cg21–Pg1–Ps177	Cg21–Pg1–Ps178	Cg21–Pg1–Ps179	Cg21–Pg1–Ps180
5	Cg21–Pg1–Ps181	Cg21–Pg1–Ps182	Cg21–Pg1–Ps183	Cg21–Pg1–Ps184
	Cg21–Pg1–Ps185	Cg21–Pg1–Ps186	Cg21–Pg1–Ps187	Cg21–Pg1–Ps188
	Cg21–Pg1–Ps189	Cg21–Pg1–Ps190	Cg21–Pg1–Ps191	Cg21–Pg1–Ps192
	Cg21–Pg1–Ps193	Cg21–Pg1–Ps194	Cg21–Pg1–Ps195	Cg21–Pg1–Ps196
	Cg21–Pg1–Ps197	Cg21–Pg1–Ps198	Cg21–Pg1–Ps199	Cg21–Pg1–Ps200
10	Cg21–Pg1–Ps201	Cg21–Pg1–Ps202	Cg21–Pg1–Ps203	Cg21–Pg1–Ps204
	Cg21–Pg1–Ps205	Cg21–Pg1–Ps206	Cg21–Pg1–Ps207	Cg21–Pg1–Ps208
	Cg21–Pg1–Ps209	Cg21–Pg1–Ps210	Cg21–Pg1–Ps211	Cg21–Pg1–Ps212
	Cg21–Pg1–Ps213	Cg21–Pg1–Ps214	Cg21–Pg1–Ps215	Cg21–Pg1–Ps216
	Cg21–Pg1–Ps217	Cg21–Pg1–Ps218	Cg21–Pg1–Ps219	Cg21–Pg1–Ps220
15	Cg21–Pg1–Ps221	Cg21–Pg1–Ps222	Cg21–Pg1–Ps223	Cg21–Pg1–Ps224
	Cg21–Pg1–Ps225	Cg21–Pg1–Ps226	Cg21–Pg1–Ps227	Cg21–Pg1–Ps228
	Cg21–Pg1–Ps229	Cg21–Pg1–Ps230	Cg21–Pg1–Ps231	Cg21–Pg1–Ps232
	Cg21–Pg1–Ps233	Cg21–Pg1–Ps234	Cg21–Pg1–Ps235	Cg21–Pg1–Ps236
	Cg21–Pg1–Ps237	Cg21–Pg1–Ps238	Cg21–Pg1–Ps239	Cg21–Pg1–Ps240
20	Cg21–Pg1–Ps241	Cg21–Pg1–Ps242	Cg21–Pg1–Ps243	

	Cg22–Pg1–Ps1	Cg22–Pg1–Ps2	Cg22–Pg1–Ps3	Cg22–Pg1–Ps4
	Cg22–Pg1–Ps5	Cg22–Pg1–Ps6	Cg22–Pg1–Ps7	Cg22–Pg1–Ps8
	Cg22–Pg1–Ps9	Cg22–Pg1–Ps10	Cg22–Pg1–Ps11	Cg22–Pg1–Ps12
25	Cg22–Pg1–Ps13	Cg22–Pg1–Ps14	Cg22–Pg1–Ps15	Cg22–Pg1–Ps16
	Cg22–Pg1–Ps17	Cg22–Pg1–Ps18	Cg22–Pg1–Ps19	Cg22–Pg1–Ps20
	Cg22–Pg1–Ps21	Cg22–Pg1–Ps22	Cg22–Pg1–Ps23	Cg22–Pg1–Ps24
	Cg22–Pg1–Ps25	Cg22–Pg1–Ps26	Cg22–Pg1–Ps27	Cg22–Pg1–Ps28
	Cg22–Pg1–Ps29	Cg22–Pg1–Ps30	Cg22–Pg1–Ps31	Cg22–Pg1–Ps32
30	Cg22–Pg1–Ps33	Cg22–Pg1–Ps34	Cg22–Pg1–Ps35	Cg22–Pg1–Ps36
	Cg22–Pg1–Ps37	Cg22–Pg1–Ps38	Cg22–Pg1–Ps39	Cg22–Pg1–Ps40
	Cg22–Pg1–Ps41	Cg22–Pg1–Ps42	Cg22–Pg1–Ps43	Cg22–Pg1–Ps44
	Cg22–Pg1–Ps45	Cg22–Pg1–Ps46	Cg22–Pg1–Ps47	Cg22–Pg1–Ps48
	Cg22–Pg1–Ps49	Cg22–Pg1–Ps50	Cg22–Pg1–Ps51	Cg22–Pg1–Ps52
35	Cg22–Pg1–Ps53	Cg22–Pg1–Ps54	Cg22–Pg1–Ps55	Cg22–Pg1–Ps56
	Cg22–Pg1–Ps57	Cg22–Pg1–Ps58	Cg22–Pg1–Ps59	Cg22–Pg1–Ps60
	Cg22–Pg1–Ps61	Cg22–Pg1–Ps62	Cg22–Pg1–Ps63	Cg22–Pg1–Ps64
	Cg22–Pg1–Ps65	Cg22–Pg1–Ps66	Cg22–Pg1–Ps67	Cg22–Pg1–Ps68
	Cg22–Pg1–Ps69	Cg22–Pg1–Ps70	Cg22–Pg1–Ps71	Cg22–Pg1–Ps72
40	Cg22–Pg1–Ps73	Cg22–Pg1–Ps74	Cg22–Pg1–Ps75	Cg22–Pg1–Ps76
	Cg22–Pg1–Ps77	Cg22–Pg1–Ps78	Cg22–Pg1–Ps79	Cg22–Pg1–Ps80
	Cg22–Pg1–Ps81	Cg22–Pg1–Ps82	Cg22–Pg1–Ps83	Cg22–Pg1–Ps84
	Cg22–Pg1–Ps85	Cg22–Pg1–Ps86	Cg22–Pg1–Ps87	Cg22–Pg1–Ps88
	Cg22–Pg1–Ps89	Cg22–Pg1–Ps90	Cg22–Pg1–Ps91	Cg22–Pg1–Ps92
45	Cg22–Pg1–Ps93	Cg22–Pg1–Ps94	Cg22–Pg1–Ps95	Cg22–Pg1–Ps96
	Cg22–Pg1–Ps97	Cg22–Pg1–Ps98	Cg22–Pg1–Ps99	Cg22–Pg1–Ps100
	Cg22–Pg1–Ps101	Cg22–Pg1–Ps102	Cg22–Pg1–Ps103	Cg22–Pg1–Ps104
	Cg22–Pg1–Ps105	Cg22–Pg1–Ps106	Cg22–Pg1–Ps107	Cg22–Pg1–Ps108
	Cg22–Pg1–Ps109	Cg22–Pg1–Ps110	Cg22–Pg1–Ps111	Cg22–Pg1–Ps112
50	Cg22–Pg1–Ps113	Cg22–Pg1–Ps114	Cg22–Pg1–Ps115	Cg22–Pg1–Ps116
	Cg22–Pg1–Ps117	Cg22–Pg1–Ps118	Cg22–Pg1–Ps119	Cg22–Pg1–Ps120
	Cg22–Pg1–Ps121	Cg22–Pg1–Ps122	Cg22–Pg1–Ps123	Cg22–Pg1–Ps124

	Cg22–Pg1–Ps125	Cg22–Pg1–Ps126	Cg22–Pg1–Ps127	Cg22–Pg1–Ps128
	Cg22–Pg1–Ps129	Cg22–Pg1–Ps130	Cg22–Pg1–Ps131	Cg22–Pg1–Ps132
	Cg22–Pg1–Ps133	Cg22–Pg1–Ps134	Cg22–Pg1–Ps135	Cg22–Pg1–Ps136
	Cg22–Pg1–Ps137	Cg22–Pg1–Ps138	Cg22–Pg1–Ps139	Cg22–Pg1–Ps140
5	Cg22–Pg1–Ps141	Cg22–Pg1–Ps142	Cg22–Pg1–Ps143	Cg22–Pg1–Ps144
	Cg22–Pg1–Ps145	Cg22–Pg1–Ps146	Cg22–Pg1–Ps147	Cg22–Pg1–Ps148
	Cg22–Pg1–Ps149	Cg22–Pg1–Ps150	Cg22–Pg1–Ps151	Cg22–Pg1–Ps152
	Cg22–Pg1–Ps153	Cg22–Pg1–Ps154	Cg22–Pg1–Ps155	Cg22–Pg1–Ps156
	Cg22–Pg1–Ps157	Cg22–Pg1–Ps158	Cg22–Pg1–Ps159	Cg22–Pg1–Ps160
10	Cg22–Pg1–Ps161	Cg22–Pg1–Ps162	Cg22–Pg1–Ps163	Cg22–Pg1–Ps164
	Cg22–Pg1–Ps165	Cg22–Pg1–Ps166	Cg22–Pg1–Ps167	Cg22–Pg1–Ps168
	Cg22–Pg1–Ps169	Cg22–Pg1–Ps170	Cg22–Pg1–Ps171	Cg22–Pg1–Ps172
	Cg22–Pg1–Ps173	Cg22–Pg1–Ps174	Cg22–Pg1–Ps175	Cg22–Pg1–Ps176
	Cg22–Pg1–Ps177	Cg22–Pg1–Ps178	Cg22–Pg1–Ps179	Cg22–Pg1–Ps180
15	Cg22–Pg1–Ps181	Cg22–Pg1–Ps182	Cg22–Pg1–Ps183	Cg22–Pg1–Ps184
	Cg22–Pg1–Ps185	Cg22–Pg1–Ps186	Cg22–Pg1–Ps187	Cg22–Pg1–Ps188
	Cg22–Pg1–Ps189	Cg22–Pg1–Ps190	Cg22–Pg1–Ps191	Cg22–Pg1–Ps192
	Cg22–Pg1–Ps193	Cg22–Pg1–Ps194	Cg22–Pg1–Ps195	Cg22–Pg1–Ps196
	Cg22–Pg1–Ps197	Cg22–Pg1–Ps198	Cg22–Pg1–Ps199	Cg22–Pg1–Ps200
20	Cg22–Pg1–Ps201	Cg22–Pg1–Ps202	Cg22–Pg1–Ps203	Cg22–Pg1–Ps204
	Cg22–Pg1–Ps205	Cg22–Pg1–Ps206	Cg22–Pg1–Ps207	Cg22–Pg1–Ps208
	Cg22–Pg1–Ps209	Cg22–Pg1–Ps210	Cg22–Pg1–Ps211	Cg22–Pg1–Ps212
	Cg22–Pg1–Ps213	Cg22–Pg1–Ps214	Cg22–Pg1–Ps215	Cg22–Pg1–Ps216
	Cg22–Pg1–Ps217	Cg22–Pg1–Ps218	Cg22–Pg1–Ps219	Cg22–Pg1–Ps220
25	Cg22–Pg1–Ps221	Cg22–Pg1–Ps222	Cg22–Pg1–Ps223	Cg22–Pg1–Ps224
	Cg22–Pg1–Ps225	Cg22–Pg1–Ps226	Cg22–Pg1–Ps227	Cg22–Pg1–Ps228
	Cg22–Pg1–Ps229	Cg22–Pg1–Ps230	Cg22–Pg1–Ps231	Cg22–Pg1–Ps232
	Cg22–Pg1–Ps233	Cg22–Pg1–Ps234	Cg22–Pg1–Ps235	Cg22–Pg1–Ps236
	Cg22–Pg1–Ps237	Cg22–Pg1–Ps238	Cg22–Pg1–Ps239	Cg22–Pg1–Ps240
30	Cg22–Pg1–Ps241	Cg22–Pg1–Ps242	Cg22–Pg1–Ps243	
	Cg23–Pg1–Ps1	Cg23–Pg1–Ps2	Cg23–Pg1–Ps3	Cg23–Pg1–Ps4
	Cg23–Pg1–Ps5	Cg23–Pg1–Ps6	Cg23–Pg1–Ps7	Cg23–Pg1–Ps8
	Cg23–Pg1–Ps9	Cg23–Pg1–Ps10	Cg23–Pg1–Ps11	Cg23–Pg1–Ps12
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	Cg23–Pg1–Ps17	Cg23–Pg1–Ps18	Cg23–Pg1–Ps19	Cg23–Pg1–Ps20
	Cg23–Pg1–Ps21	Cg23–Pg1–Ps22	Cg23–Pg1–Ps23	Cg23–Pg1–Ps24
	Cg23–Pg1–Ps25	Cg23–Pg1–Ps26	Cg23–Pg1–Ps27	Cg23–Pg1–Ps28
	Cg23–Pg1–Ps29	Cg23–Pg1–Ps30	Cg23–Pg1–Ps31	Cg23–Pg1–Ps32
40	Cg23–Pg1–Ps33	Cg23–Pg1–Ps34	Cg23–Pg1–Ps35	Cg23–Pg1–Ps36
	Cg23–Pg1–Ps37	Cg23–Pg1–Ps38	Cg23–Pg1–Ps39	Cg23–Pg1–Ps40
	Cg23–Pg1–Ps41	Cg23–Pg1–Ps42	Cg23–Pg1–Ps43	Cg23–Pg1–Ps44
	Cg23–Pg1–Ps45	Cg23–Pg1–Ps46	Cg23–Pg1–Ps47	Cg23–Pg1–Ps48
	Cg23–Pg1–Ps49	Cg23–Pg1–Ps50	Cg23–Pg1–Ps51	Cg23–Pg1–Ps52
45	Cg23–Pg1–Ps53	Cg23–Pg1–Ps54	Cg23–Pg1–Ps55	Cg23–Pg1–Ps56
	Cg23–Pg1–Ps57	Cg23–Pg1–Ps58	Cg23–Pg1–Ps59	Cg23–Pg1–Ps60
	Cg23–Pg1–Ps61	Cg23–Pg1–Ps62	Cg23–Pg1–Ps63	Cg23–Pg1–Ps64
	Cg23–Pg1–Ps65	Cg23–Pg1–Ps66	Cg23–Pg1–Ps67	Cg23–Pg1–Ps68
	Cg23–Pg1–Ps69	Cg23–Pg1–Ps70	Cg23–Pg1–Ps71	Cg23–Pg1–Ps72
50	Cg23–Pg1–Ps73	Cg23–Pg1–Ps74	Cg23–Pg1–Ps75	Cg23–Pg1–Ps76
	Cg23–Pg1–Ps77	Cg23–Pg1–Ps78	Cg23–Pg1–Ps79	Cg23–Pg1–Ps80
	Cg23–Pg1–Ps81	Cg23–Pg1–Ps82	Cg23–Pg1–Ps83	Cg23–Pg1–Ps84

	Cg23–Pg1–Ps85	Cg23–Pg1–Ps86	Cg23–Pg1–Ps87	Cg23–Pg1–Ps88
	Cg23–Pg1–Ps89	Cg23–Pg1–Ps90	Cg23–Pg1–Ps91	Cg23–Pg1–Ps92
	Cg23–Pg1–Ps93	Cg23–Pg1–Ps94	Cg23–Pg1–Ps95	Cg23–Pg1–Ps96
	Cg23–Pg1–Ps97	Cg23–Pg1–Ps98	Cg23–Pg1–Ps99	Cg23–Pg1–Ps100
5	Cg23–Pg1–Ps101	Cg23–Pg1–Ps102	Cg23–Pg1–Ps103	Cg23–Pg1–Ps104
	Cg23–Pg1–Ps105	Cg23–Pg1–Ps106	Cg23–Pg1–Ps107	Cg23–Pg1–Ps108
	Cg23–Pg1–Ps109	Cg23–Pg1–Ps110	Cg23–Pg1–Ps111	Cg23–Pg1–Ps112
	Cg23–Pg1–Ps113	Cg23–Pg1–Ps114	Cg23–Pg1–Ps115	Cg23–Pg1–Ps116
	Cg23–Pg1–Ps117	Cg23–Pg1–Ps118	Cg23–Pg1–Ps119	Cg23–Pg1–Ps120
10	Cg23–Pg1–Ps121	Cg23–Pg1–Ps122	Cg23–Pg1–Ps123	Cg23–Pg1–Ps124
	Cg23–Pg1–Ps125	Cg23–Pg1–Ps126	Cg23–Pg1–Ps127	Cg23–Pg1–Ps128
	Cg23–Pg1–Ps129	Cg23–Pg1–Ps130	Cg23–Pg1–Ps131	Cg23–Pg1–Ps132
	Cg23–Pg1–Ps133	Cg23–Pg1–Ps134	Cg23–Pg1–Ps135	Cg23–Pg1–Ps136
	Cg23–Pg1–Ps137	Cg23–Pg1–Ps138	Cg23–Pg1–Ps139	Cg23–Pg1–Ps140
15	Cg23–Pg1–Ps141	Cg23–Pg1–Ps142	Cg23–Pg1–Ps143	Cg23–Pg1–Ps144
	Cg23–Pg1–Ps145	Cg23–Pg1–Ps146	Cg23–Pg1–Ps147	Cg23–Pg1–Ps148
	Cg23–Pg1–Ps149	Cg23–Pg1–Ps150	Cg23–Pg1–Ps151	Cg23–Pg1–Ps152
	Cg23–Pg1–Ps153	Cg23–Pg1–Ps154	Cg23–Pg1–Ps155	Cg23–Pg1–Ps156
	Cg23–Pg1–Ps157	Cg23–Pg1–Ps158	Cg23–Pg1–Ps159	Cg23–Pg1–Ps160
20	Cg23–Pg1–Ps161	Cg23–Pg1–Ps162	Cg23–Pg1–Ps163	Cg23–Pg1–Ps164
	Cg23–Pg1–Ps165	Cg23–Pg1–Ps166	Cg23–Pg1–Ps167	Cg23–Pg1–Ps168
	Cg23–Pg1–Ps169	Cg23–Pg1–Ps170	Cg23–Pg1–Ps171	Cg23–Pg1–Ps172
	Cg23–Pg1–Ps173	Cg23–Pg1–Ps174	Cg23–Pg1–Ps175	Cg23–Pg1–Ps176
	Cg23–Pg1–Ps177	Cg23–Pg1–Ps178	Cg23–Pg1–Ps179	Cg23–Pg1–Ps180
25	Cg23–Pg1–Ps181	Cg23–Pg1–Ps182	Cg23–Pg1–Ps183	Cg23–Pg1–Ps184
	Cg23–Pg1–Ps185	Cg23–Pg1–Ps186	Cg23–Pg1–Ps187	Cg23–Pg1–Ps188
	Cg23–Pg1–Ps189	Cg23–Pg1–Ps190	Cg23–Pg1–Ps191	Cg23–Pg1–Ps192
	Cg23–Pg1–Ps193	Cg23–Pg1–Ps194	Cg23–Pg1–Ps195	Cg23–Pg1–Ps196
	Cg23–Pg1–Ps197	Cg23–Pg1–Ps198	Cg23–Pg1–Ps199	Cg23–Pg1–Ps200
30	Cg23–Pg1–Ps201	Cg23–Pg1–Ps202	Cg23–Pg1–Ps203	Cg23–Pg1–Ps204
	Cg23–Pg1–Ps205	Cg23–Pg1–Ps206	Cg23–Pg1–Ps207	Cg23–Pg1–Ps208
	Cg23–Pg1–Ps209	Cg23–Pg1–Ps210	Cg23–Pg1–Ps211	Cg23–Pg1–Ps212
	Cg23–Pg1–Ps213	Cg23–Pg1–Ps214	Cg23–Pg1–Ps215	Cg23–Pg1–Ps216
	Cg23–Pg1–Ps217	Cg23–Pg1–Ps218	Cg23–Pg1–Ps219	Cg23–Pg1–Ps220
35	Cg23–Pg1–Ps221	Cg23–Pg1–Ps222	Cg23–Pg1–Ps223	Cg23–Pg1–Ps224
	Cg23–Pg1–Ps225	Cg23–Pg1–Ps226	Cg23–Pg1–Ps227	Cg23–Pg1–Ps228
	Cg23–Pg1–Ps229	Cg23–Pg1–Ps230	Cg23–Pg1–Ps231	Cg23–Pg1–Ps232
	Cg23–Pg1–Ps233	Cg23–Pg1–Ps234	Cg23–Pg1–Ps235	Cg23–Pg1–Ps236
	Cg23–Pg1–Ps237	Cg23–Pg1–Ps238	Cg23–Pg1–Ps239	Cg23–Pg1–Ps240
40	Cg23–Pg1–Ps241	Cg23–Pg1–Ps242	Cg23–Pg1–Ps243	
	Cg24–Pg1–Ps1	Cg24–Pg1–Ps2	Cg24–Pg1–Ps3	Cg24–Pg1–Ps4
	Cg24–Pg1–Ps5	Cg24–Pg1–Ps6	Cg24–Pg1–Ps7	Cg24–Pg1–Ps8
	Cg24–Pg1–Ps9	Cg24–Pg1–Ps10	Cg24–Pg1–Ps11	Cg24–Pg1–Ps12
45	Cg24–Pg1–Ps13	Cg24–Pg1–Ps14	Cg24–Pg1–Ps15	Cg24–Pg1–Ps16
	Cg24–Pg1–Ps17	Cg24–Pg1–Ps18	Cg24–Pg1–Ps19	Cg24–Pg1–Ps20
	Cg24–Pg1–Ps21	Cg24–Pg1–Ps22	Cg24–Pg1–Ps23	Cg24–Pg1–Ps24
	Cg24–Pg1–Ps25	Cg24–Pg1–Ps26	Cg24–Pg1–Ps27	Cg24–Pg1–Ps28
	Cg24–Pg1–Ps29	Cg24–Pg1–Ps30	Cg24–Pg1–Ps31	Cg24–Pg1–Ps32
50	Cg24–Pg1–Ps33	Cg24–Pg1–Ps34	Cg24–Pg1–Ps35	Cg24–Pg1–Ps36
	Cg24–Pg1–Ps37	Cg24–Pg1–Ps38	Cg24–Pg1–Ps39	Cg24–Pg1–Ps40
	Cg24–Pg1–Ps41	Cg24–Pg1–Ps42	Cg24–Pg1–Ps43	Cg24–Pg1–Ps44

	Cg24–Pg1–Ps45	Cg24–Pg1–Ps46	Cg24–Pg1–Ps47	Cg24–Pg1–Ps48
	Cg24–Pg1–Ps49	Cg24–Pg1–Ps50	Cg24–Pg1–Ps51	Cg24–Pg1–Ps52
	Cg24–Pg1–Ps53	Cg24–Pg1–Ps54	Cg24–Pg1–Ps55	Cg24–Pg1–Ps56
	Cg24–Pg1–Ps57	Cg24–Pg1–Ps58	Cg24–Pg1–Ps59	Cg24–Pg1–Ps60
5	Cg24–Pg1–Ps61	Cg24–Pg1–Ps62	Cg24–Pg1–Ps63	Cg24–Pg1–Ps64
	Cg24–Pg1–Ps65	Cg24–Pg1–Ps66	Cg24–Pg1–Ps67	Cg24–Pg1–Ps68
	Cg24–Pg1–Ps69	Cg24–Pg1–Ps70	Cg24–Pg1–Ps71	Cg24–Pg1–Ps72
	Cg24–Pg1–Ps73	Cg24–Pg1–Ps74	Cg24–Pg1–Ps75	Cg24–Pg1–Ps76
	Cg24–Pg1–Ps77	Cg24–Pg1–Ps78	Cg24–Pg1–Ps79	Cg24–Pg1–Ps80
10	Cg24–Pg1–Ps81	Cg24–Pg1–Ps82	Cg24–Pg1–Ps83	Cg24–Pg1–Ps84
	Cg24–Pg1–Ps85	Cg24–Pg1–Ps86	Cg24–Pg1–Ps87	Cg24–Pg1–Ps88
	Cg24–Pg1–Ps89	Cg24–Pg1–Ps90	Cg24–Pg1–Ps91	Cg24–Pg1–Ps92
	Cg24–Pg1–Ps93	Cg24–Pg1–Ps94	Cg24–Pg1–Ps95	Cg24–Pg1–Ps96
	Cg24–Pg1–Ps97	Cg24–Pg1–Ps98	Cg24–Pg1–Ps99	Cg24–Pg1–Ps100
15	Cg24–Pg1–Ps101	Cg24–Pg1–Ps102	Cg24–Pg1–Ps103	Cg24–Pg1–Ps104
	Cg24–Pg1–Ps105	Cg24–Pg1–Ps106	Cg24–Pg1–Ps107	Cg24–Pg1–Ps108
	Cg24–Pg1–Ps109	Cg24–Pg1–Ps110	Cg24–Pg1–Ps111	Cg24–Pg1–Ps112
	Cg24–Pg1–Ps113	Cg24–Pg1–Ps114	Cg24–Pg1–Ps115	Cg24–Pg1–Ps116
	Cg24–Pg1–Ps117	Cg24–Pg1–Ps118	Cg24–Pg1–Ps119	Cg24–Pg1–Ps120
20	Cg24–Pg1–Ps121	Cg24–Pg1–Ps122	Cg24–Pg1–Ps123	Cg24–Pg1–Ps124
	Cg24–Pg1–Ps125	Cg24–Pg1–Ps126	Cg24–Pg1–Ps127	Cg24–Pg1–Ps128
	Cg24–Pg1–Ps129	Cg24–Pg1–Ps130	Cg24–Pg1–Ps131	Cg24–Pg1–Ps132
	Cg24–Pg1–Ps133	Cg24–Pg1–Ps134	Cg24–Pg1–Ps135	Cg24–Pg1–Ps136
	Cg24–Pg1–Ps137	Cg24–Pg1–Ps138	Cg24–Pg1–Ps139	Cg24–Pg1–Ps140
25	Cg24–Pg1–Ps141	Cg24–Pg1–Ps142	Cg24–Pg1–Ps143	Cg24–Pg1–Ps144
	Cg24–Pg1–Ps145	Cg24–Pg1–Ps146	Cg24–Pg1–Ps147	Cg24–Pg1–Ps148
	Cg24–Pg1–Ps149	Cg24–Pg1–Ps150	Cg24–Pg1–Ps151	Cg24–Pg1–Ps152
	Cg24–Pg1–Ps153	Cg24–Pg1–Ps154	Cg24–Pg1–Ps155	Cg24–Pg1–Ps156
	Cg24–Pg1–Ps157	Cg24–Pg1–Ps158	Cg24–Pg1–Ps159	Cg24–Pg1–Ps160
30	Cg24–Pg1–Ps161	Cg24–Pg1–Ps162	Cg24–Pg1–Ps163	Cg24–Pg1–Ps164
	Cg24–Pg1–Ps165	Cg24–Pg1–Ps166	Cg24–Pg1–Ps167	Cg24–Pg1–Ps168
	Cg24–Pg1–Ps169	Cg24–Pg1–Ps170	Cg24–Pg1–Ps171	Cg24–Pg1–Ps172
	Cg24–Pg1–Ps173	Cg24–Pg1–Ps174	Cg24–Pg1–Ps175	Cg24–Pg1–Ps176
	Cg24–Pg1–Ps177	Cg24–Pg1–Ps178	Cg24–Pg1–Ps179	Cg24–Pg1–Ps180
35	Cg24–Pg1–Ps181	Cg24–Pg1–Ps182	Cg24–Pg1–Ps183	Cg24–Pg1–Ps184
	Cg24–Pg1–Ps185	Cg24–Pg1–Ps186	Cg24–Pg1–Ps187	Cg24–Pg1–Ps188
	Cg24–Pg1–Ps189	Cg24–Pg1–Ps190	Cg24–Pg1–Ps191	Cg24–Pg1–Ps192
	Cg24–Pg1–Ps193	Cg24–Pg1–Ps194	Cg24–Pg1–Ps195	Cg24–Pg1–Ps196
	Cg24–Pg1–Ps197	Cg24–Pg1–Ps198	Cg24–Pg1–Ps199	Cg24–Pg1–Ps200
40	Cg24–Pg1–Ps201	Cg24–Pg1–Ps202	Cg24–Pg1–Ps203	Cg24–Pg1–Ps204
	Cg24–Pg1–Ps205	Cg24–Pg1–Ps206	Cg24–Pg1–Ps207	Cg24–Pg1–Ps208
	Cg24–Pg1–Ps209	Cg24–Pg1–Ps210	Cg24–Pg1–Ps211	Cg24–Pg1–Ps212
	Cg24–Pg1–Ps213	Cg24–Pg1–Ps214	Cg24–Pg1–Ps215	Cg24–Pg1–Ps216
	Cg24–Pg1–Ps217	Cg24–Pg1–Ps218	Cg24–Pg1–Ps219	Cg24–Pg1–Ps220
45	Cg24–Pg1–Ps221	Cg24–Pg1–Ps222	Cg24–Pg1–Ps223	Cg24–Pg1–Ps224
	Cg24–Pg1–Ps225	Cg24–Pg1–Ps226	Cg24–Pg1–Ps227	Cg24–Pg1–Ps228
	Cg24–Pg1–Ps229	Cg24–Pg1–Ps230	Cg24–Pg1–Ps231	Cg24–Pg1–Ps232
	Cg24–Pg1–Ps233	Cg24–Pg1–Ps234	Cg24–Pg1–Ps235	Cg24–Pg1–Ps236
	Cg24–Pg1–Ps237	Cg24–Pg1–Ps238	Cg24–Pg1–Ps239	Cg24–Pg1–Ps240
50	Cg24–Pg1–Ps241	Cg24–Pg1–Ps242	Cg24–Pg1–Ps243	
	Cg25–Pg1–Ps1	Cg25–Pg1–Ps2	Cg25–Pg1–Ps3	Cg25–Pg1–Ps4

	Cg25–Pg1–Ps5	Cg25–Pg1–Ps6	Cg25–Pg1–Ps7	Cg25–Pg1–Ps8
	Cg25–Pg1–Ps9	Cg25–Pg1–Ps10	Cg25–Pg1–Ps11	Cg25–Pg1–Ps12
	Cg25–Pg1–Ps13	Cg25–Pg1–Ps14	Cg25–Pg1–Ps15	Cg25–Pg1–Ps16
	Cg25–Pg1–Ps17	Cg25–Pg1–Ps18	Cg25–Pg1–Ps19	Cg25–Pg1–Ps20
5	Cg25–Pg1–Ps21	Cg25–Pg1–Ps22	Cg25–Pg1–Ps23	Cg25–Pg1–Ps24
	Cg25–Pg1–Ps25	Cg25–Pg1–Ps26	Cg25–Pg1–Ps27	Cg25–Pg1–Ps28
	Cg25–Pg1–Ps29	Cg25–Pg1–Ps30	Cg25–Pg1–Ps31	Cg25–Pg1–Ps32
	Cg25–Pg1–Ps33	Cg25–Pg1–Ps34	Cg25–Pg1–Ps35	Cg25–Pg1–Ps36
	Cg25–Pg1–Ps37	Cg25–Pg1–Ps38	Cg25–Pg1–Ps39	Cg25–Pg1–Ps40
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	Cg25–Pg1–Ps45	Cg25–Pg1–Ps46	Cg25–Pg1–Ps47	Cg25–Pg1–Ps48
	Cg25–Pg1–Ps49	Cg25–Pg1–Ps50	Cg25–Pg1–Ps51	Cg25–Pg1–Ps52
	Cg25–Pg1–Ps53	Cg25–Pg1–Ps54	Cg25–Pg1–Ps55	Cg25–Pg1–Ps56
	Cg25–Pg1–Ps57	Cg25–Pg1–Ps58	Cg25–Pg1–Ps59	Cg25–Pg1–Ps60
15	Cg25–Pg1–Ps61	Cg25–Pg1–Ps62	Cg25–Pg1–Ps63	Cg25–Pg1–Ps64
	Cg25–Pg1–Ps65	Cg25–Pg1–Ps66	Cg25–Pg1–Ps67	Cg25–Pg1–Ps68
	Cg25–Pg1–Ps69	Cg25–Pg1–Ps70	Cg25–Pg1–Ps71	Cg25–Pg1–Ps72
	Cg25–Pg1–Ps73	Cg25–Pg1–Ps74	Cg25–Pg1–Ps75	Cg25–Pg1–Ps76
	Cg25–Pg1–Ps77	Cg25–Pg1–Ps78	Cg25–Pg1–Ps79	Cg25–Pg1–Ps80
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	Cg25–Pg1–Ps85	Cg25–Pg1–Ps86	Cg25–Pg1–Ps87	Cg25–Pg1–Ps88
	Cg25–Pg1–Ps89	Cg25–Pg1–Ps90	Cg25–Pg1–Ps91	Cg25–Pg1–Ps92
	Cg25–Pg1–Ps93	Cg25–Pg1–Ps94	Cg25–Pg1–Ps95	Cg25–Pg1–Ps96
	Cg25–Pg1–Ps97	Cg25–Pg1–Ps98	Cg25–Pg1–Ps99	Cg25–Pg1–Ps100
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	Cg25–Pg1–Ps113	Cg25–Pg1–Ps114	Cg25–Pg1–Ps115	Cg25–Pg1–Ps116
	Cg25–Pg1–Ps117	Cg25–Pg1–Ps118	Cg25–Pg1–Ps119	Cg25–Pg1–Ps120
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	Cg25–Pg1–Ps125	Cg25–Pg1–Ps126	Cg25–Pg1–Ps127	Cg25–Pg1–Ps128
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	Cg25–Pg1–Ps133	Cg25–Pg1–Ps134	Cg25–Pg1–Ps135	Cg25–Pg1–Ps136
	Cg25–Pg1–Ps137	Cg25–Pg1–Ps138	Cg25–Pg1–Ps139	Cg25–Pg1–Ps140
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	Cg25–Pg1–Ps145	Cg25–Pg1–Ps146	Cg25–Pg1–Ps147	Cg25–Pg1–Ps148
	Cg25–Pg1–Ps149	Cg25–Pg1–Ps150	Cg25–Pg1–Ps151	Cg25–Pg1–Ps152
	Cg25–Pg1–Ps153	Cg25–Pg1–Ps154	Cg25–Pg1–Ps155	Cg25–Pg1–Ps156
	Cg25–Pg1–Ps157	Cg25–Pg1–Ps158	Cg25–Pg1–Ps159	Cg25–Pg1–Ps160
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	Cg25–Pg1–Ps165	Cg25–Pg1–Ps166	Cg25–Pg1–Ps167	Cg25–Pg1–Ps168
	Cg25–Pg1–Ps169	Cg25–Pg1–Ps170	Cg25–Pg1–Ps171	Cg25–Pg1–Ps172
	Cg25–Pg1–Ps173	Cg25–Pg1–Ps174	Cg25–Pg1–Ps175	Cg25–Pg1–Ps176
	Cg25–Pg1–Ps177	Cg25–Pg1–Ps178	Cg25–Pg1–Ps179	Cg25–Pg1–Ps180
45	Cg25–Pg1–Ps181	Cg25–Pg1–Ps182	Cg25–Pg1–Ps183	Cg25–Pg1–Ps184
	Cg25–Pg1–Ps185	Cg25–Pg1–Ps186	Cg25–Pg1–Ps187	Cg25–Pg1–Ps188
	Cg25–Pg1–Ps189	Cg25–Pg1–Ps190	Cg25–Pg1–Ps191	Cg25–Pg1–Ps192
	Cg25–Pg1–Ps193	Cg25–Pg1–Ps194	Cg25–Pg1–Ps195	Cg25–Pg1–Ps196
	Cg25–Pg1–Ps197	Cg25–Pg1–Ps198	Cg25–Pg1–Ps199	Cg25–Pg1–Ps200
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	Cg25–Pg1–Ps205	Cg25–Pg1–Ps206	Cg25–Pg1–Ps207	Cg25–Pg1–Ps208
	Cg25–Pg1–Ps209	Cg25–Pg1–Ps210	Cg25–Pg1–Ps211	Cg25–Pg1–Ps212

	Cg25–Pg1–Ps213	Cg25–Pg1–Ps214	Cg25–Pg1–Ps215	Cg25–Pg1–Ps216
	Cg25–Pg1–Ps217	Cg25–Pg1–Ps218	Cg25–Pg1–Ps219	Cg25–Pg1–Ps220
	Cg25–Pg1–Ps221	Cg25–Pg1–Ps222	Cg25–Pg1–Ps223	Cg25–Pg1–Ps224
	Cg25–Pg1–Ps225	Cg25–Pg1–Ps226	Cg25–Pg1–Ps227	Cg25–Pg1–Ps228
5	Cg25–Pg1–Ps229	Cg25–Pg1–Ps230	Cg25–Pg1–Ps231	Cg25–Pg1–Ps232
	Cg25–Pg1–Ps233	Cg25–Pg1–Ps234	Cg25–Pg1–Ps235	Cg25–Pg1–Ps236
	Cg25–Pg1–Ps237	Cg25–Pg1–Ps238	Cg25–Pg1–Ps239	Cg25–Pg1–Ps240
	Cg25–Pg1–Ps241	Cg25–Pg1–Ps242	Cg25–Pg1–Ps243	
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	Cg26–Pg1–Ps5	Cg26–Pg1–Ps6	Cg26–Pg1–Ps7	Cg26–Pg1–Ps8
	Cg26–Pg1–Ps9	Cg26–Pg1–Ps10	Cg26–Pg1–Ps11	Cg26–Pg1–Ps12
	Cg26–Pg1–Ps13	Cg26–Pg1–Ps14	Cg26–Pg1–Ps15	Cg26–Pg1–Ps16
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	Cg26–Pg1–Ps25	Cg26–Pg1–Ps26	Cg26–Pg1–Ps27	Cg26–Pg1–Ps28
	Cg26–Pg1–Ps29	Cg26–Pg1–Ps30	Cg26–Pg1–Ps31	Cg26–Pg1–Ps32
	Cg26–Pg1–Ps33	Cg26–Pg1–Ps34	Cg26–Pg1–Ps35	Cg26–Pg1–Ps36
	Cg26–Pg1–Ps37	Cg26–Pg1–Ps38	Cg26–Pg1–Ps39	Cg26–Pg1–Ps40
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	Cg26–Pg1–Ps45	Cg26–Pg1–Ps46	Cg26–Pg1–Ps47	Cg26–Pg1–Ps48
	Cg26–Pg1–Ps49	Cg26–Pg1–Ps50	Cg26–Pg1–Ps51	Cg26–Pg1–Ps52
	Cg26–Pg1–Ps53	Cg26–Pg1–Ps54	Cg26–Pg1–Ps55	Cg26–Pg1–Ps56
	Cg26–Pg1–Ps57	Cg26–Pg1–Ps58	Cg26–Pg1–Ps59	Cg26–Pg1–Ps60
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	Cg26–Pg1–Ps65	Cg26–Pg1–Ps66	Cg26–Pg1–Ps67	Cg26–Pg1–Ps68
	Cg26–Pg1–Ps69	Cg26–Pg1–Ps70	Cg26–Pg1–Ps71	Cg26–Pg1–Ps72
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	Cg26–Pg1–Ps77	Cg26–Pg1–Ps78	Cg26–Pg1–Ps79	Cg26–Pg1–Ps80
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	Cg26–Pg1–Ps85	Cg26–Pg1–Ps86	Cg26–Pg1–Ps87	Cg26–Pg1–Ps88
	Cg26–Pg1–Ps89	Cg26–Pg1–Ps90	Cg26–Pg1–Ps91	Cg26–Pg1–Ps92
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	Cg26–Pg1–Ps97	Cg26–Pg1–Ps98	Cg26–Pg1–Ps99	Cg26–Pg1–Ps100
35	Cg26–Pg1–Ps101	Cg26–Pg1–Ps102	Cg26–Pg1–Ps103	Cg26–Pg1–Ps104
	Cg26–Pg1–Ps105	Cg26–Pg1–Ps106	Cg26–Pg1–Ps107	Cg26–Pg1–Ps108
	Cg26–Pg1–Ps109	Cg26–Pg1–Ps110	Cg26–Pg1–Ps111	Cg26–Pg1–Ps112
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	Cg26–Pg1–Ps117	Cg26–Pg1–Ps118	Cg26–Pg1–Ps119	Cg26–Pg1–Ps120
40	Cg26–Pg1–Ps121	Cg26–Pg1–Ps122	Cg26–Pg1–Ps123	Cg26–Pg1–Ps124
	Cg26–Pg1–Ps125	Cg26–Pg1–Ps126	Cg26–Pg1–Ps127	Cg26–Pg1–Ps128
	Cg26–Pg1–Ps129	Cg26–Pg1–Ps130	Cg26–Pg1–Ps131	Cg26–Pg1–Ps132
	Cg26–Pg1–Ps133	Cg26–Pg1–Ps134	Cg26–Pg1–Ps135	Cg26–Pg1–Ps136
	Cg26–Pg1–Ps137	Cg26–Pg1–Ps138	Cg26–Pg1–Ps139	Cg26–Pg1–Ps140
45	Cg26–Pg1–Ps141	Cg26–Pg1–Ps142	Cg26–Pg1–Ps143	Cg26–Pg1–Ps144
	Cg26–Pg1–Ps145	Cg26–Pg1–Ps146	Cg26–Pg1–Ps147	Cg26–Pg1–Ps148
	Cg26–Pg1–Ps149	Cg26–Pg1–Ps150	Cg26–Pg1–Ps151	Cg26–Pg1–Ps152
	Cg26–Pg1–Ps153	Cg26–Pg1–Ps154	Cg26–Pg1–Ps155	Cg26–Pg1–Ps156
	Cg26–Pg1–Ps157	Cg26–Pg1–Ps158	Cg26–Pg1–Ps159	Cg26–Pg1–Ps160
50	Cg26–Pg1–Ps161	Cg26–Pg1–Ps162	Cg26–Pg1–Ps163	Cg26–Pg1–Ps164
	Cg26–Pg1–Ps165	Cg26–Pg1–Ps166	Cg26–Pg1–Ps167	Cg26–Pg1–Ps168
	Cg26–Pg1–Ps169	Cg26–Pg1–Ps170	Cg26–Pg1–Ps171	Cg26–Pg1–Ps172

Cg26–Pg1–Ps173	Cg26–Pg1–Ps174	Cg26–Pg1–Ps175	Cg26–Pg1–Ps176
Cg26–Pg1–Ps177	Cg26–Pg1–Ps178	Cg26–Pg1–Ps179	Cg26–Pg1–Ps180
Cg26–Pg1–Ps181	Cg26–Pg1–Ps182	Cg26–Pg1–Ps183	Cg26–Pg1–Ps184
Cg26–Pg1–Ps185	Cg26–Pg1–Ps186	Cg26–Pg1–Ps187	Cg26–Pg1–Ps188
Cg26–Pg1–Ps189	Cg26–Pg1–Ps190	Cg26–Pg1–Ps191	Cg26–Pg1–Ps192
Cg26–Pg1–Ps193	Cg26–Pg1–Ps194	Cg26–Pg1–Ps195	Cg26–Pg1–Ps196
Cg26–Pg1–Ps197	Cg26–Pg1–Ps198	Cg26–Pg1–Ps199	Cg26–Pg1–Ps200
Cg26–Pg1–Ps201	Cg26–Pg1–Ps202	Cg26–Pg1–Ps203	Cg26–Pg1–Ps204
Cg26–Pg1–Ps205	Cg26–Pg1–Ps206	Cg26–Pg1–Ps207	Cg26–Pg1–Ps208
Cg26–Pg1–Ps209	Cg26–Pg1–Ps210	Cg26–Pg1–Ps211	Cg26–Pg1–Ps212
Cg26–Pg1–Ps213	Cg26–Pg1–Ps214	Cg26–Pg1–Ps215	Cg26–Pg1–Ps216
Cg26–Pg1–Ps217	Cg26–Pg1–Ps218	Cg26–Pg1–Ps219	Cg26–Pg1–Ps220
Cg26–Pg1–Ps221	Cg26–Pg1–Ps222	Cg26–Pg1–Ps223	Cg26–Pg1–Ps224
Cg26–Pg1–Ps225	Cg26–Pg1–Ps226	Cg26–Pg1–Ps227	Cg26–Pg1–Ps228
Cg26–Pg1–Ps229	Cg26–Pg1–Ps230	Cg26–Pg1–Ps231	Cg26–Pg1–Ps232
Cg26–Pg1–Ps233	Cg26–Pg1–Ps234	Cg26–Pg1–Ps235	Cg26–Pg1–Ps236
Cg26–Pg1–Ps237	Cg26–Pg1–Ps238	Cg26–Pg1–Ps239	Cg26–Pg1–Ps240
Cg26–Pg1–Ps241	Cg26–Pg1–Ps242	Cg26–Pg1–Ps243	

Cg27–Pg1–Ps1	Cg27–Pg1–Ps2	Cg27–Pg1–Ps3	Cg27–Pg1–Ps4
Cg27–Pg1–Ps5	Cg27–Pg1–Ps6	Cg27–Pg1–Ps7	Cg27–Pg1–Ps8
Cg27–Pg1–Ps9	Cg27–Pg1–Ps10	Cg27–Pg1–Ps11	Cg27–Pg1–Ps12
Cg27–Pg1–Ps13	Cg27–Pg1–Ps14	Cg27–Pg1–Ps15	Cg27–Pg1–Ps16
Cg27–Pg1–Ps17	Cg27–Pg1–Ps18	Cg27–Pg1–Ps19	Cg27–Pg1–Ps20
Cg27–Pg1–Ps21	Cg27–Pg1–Ps22	Cg27–Pg1–Ps23	Cg27–Pg1–Ps24
Cg27–Pg1–Ps25	Cg27–Pg1–Ps26	Cg27–Pg1–Ps27	Cg27–Pg1–Ps28
Cg27–Pg1–Ps29	Cg27–Pg1–Ps30	Cg27–Pg1–Ps31	Cg27–Pg1–Ps32
Cg27–Pg1–Ps33	Cg27–Pg1–Ps34	Cg27–Pg1–Ps35	Cg27–Pg1–Ps36
Cg27–Pg1–Ps37	Cg27–Pg1–Ps38	Cg27–Pg1–Ps39	Cg27–Pg1–Ps40
Cg27–Pg1–Ps41	Cg27–Pg1–Ps42	Cg27–Pg1–Ps43	Cg27–Pg1–Ps44
Cg27–Pg1–Ps45	Cg27–Pg1–Ps46	Cg27–Pg1–Ps47	Cg27–Pg1–Ps48
Cg27–Pg1–Ps49	Cg27–Pg1–Ps50	Cg27–Pg1–Ps51	Cg27–Pg1–Ps52
Cg27–Pg1–Ps53	Cg27–Pg1–Ps54	Cg27–Pg1–Ps55	Cg27–Pg1–Ps56
Cg27–Pg1–Ps57	Cg27–Pg1–Ps58	Cg27–Pg1–Ps59	Cg27–Pg1–Ps60
Cg27–Pg1–Ps61	Cg27–Pg1–Ps62	Cg27–Pg1–Ps63	Cg27–Pg1–Ps64
Cg27–Pg1–Ps65	Cg27–Pg1–Ps66	Cg27–Pg1–Ps67	Cg27–Pg1–Ps68
Cg27–Pg1–Ps69	Cg27–Pg1–Ps70	Cg27–Pg1–Ps71	Cg27–Pg1–Ps72
Cg27–Pg1–Ps73	Cg27–Pg1–Ps74	Cg27–Pg1–Ps75	Cg27–Pg1–Ps76
Cg27–Pg1–Ps77	Cg27–Pg1–Ps78	Cg27–Pg1–Ps79	Cg27–Pg1–Ps80
Cg27–Pg1–Ps81	Cg27–Pg1–Ps82	Cg27–Pg1–Ps83	Cg27–Pg1–Ps84
Cg27–Pg1–Ps85	Cg27–Pg1–Ps86	Cg27–Pg1–Ps87	Cg27–Pg1–Ps88
Cg27–Pg1–Ps89	Cg27–Pg1–Ps90	Cg27–Pg1–Ps91	Cg27–Pg1–Ps92
Cg27–Pg1–Ps93	Cg27–Pg1–Ps94	Cg27–Pg1–Ps95	Cg27–Pg1–Ps96
Cg27–Pg1–Ps97	Cg27–Pg1–Ps98	Cg27–Pg1–Ps99	Cg27–Pg1–Ps100
Cg27–Pg1–Ps101	Cg27–Pg1–Ps102	Cg27–Pg1–Ps103	Cg27–Pg1–Ps104
Cg27–Pg1–Ps105	Cg27–Pg1–Ps106	Cg27–Pg1–Ps107	Cg27–Pg1–Ps108
Cg27–Pg1–Ps109	Cg27–Pg1–Ps110	Cg27–Pg1–Ps111	Cg27–Pg1–Ps112
Cg27–Pg1–Ps113	Cg27–Pg1–Ps114	Cg27–Pg1–Ps115	Cg27–Pg1–Ps116
Cg27–Pg1–Ps117	Cg27–Pg1–Ps118	Cg27–Pg1–Ps119	Cg27–Pg1–Ps120
Cg27–Pg1–Ps121	Cg27–Pg1–Ps122	Cg27–Pg1–Ps123	Cg27–Pg1–Ps124
Cg27–Pg1–Ps125	Cg27–Pg1–Ps126	Cg27–Pg1–Ps127	Cg27–Pg1–Ps128
Cg27–Pg1–Ps129	Cg27–Pg1–Ps130	Cg27–Pg1–Ps131	Cg27–Pg1–Ps132

	Cg27–Pg1–Ps133	Cg27–Pg1–Ps134	Cg27–Pg1–Ps135	Cg27–Pg1–Ps136
	Cg27–Pg1–Ps137	Cg27–Pg1–Ps138	Cg27–Pg1–Ps139	Cg27–Pg1–Ps140
	Cg27–Pg1–Ps141	Cg27–Pg1–Ps142	Cg27–Pg1–Ps143	Cg27–Pg1–Ps144
	Cg27–Pg1–Ps145	Cg27–Pg1–Ps146	Cg27–Pg1–Ps147	Cg27–Pg1–Ps148
5	Cg27–Pg1–Ps149	Cg27–Pg1–Ps150	Cg27–Pg1–Ps151	Cg27–Pg1–Ps152
	Cg27–Pg1–Ps153	Cg27–Pg1–Ps154	Cg27–Pg1–Ps155	Cg27–Pg1–Ps156
	Cg27–Pg1–Ps157	Cg27–Pg1–Ps158	Cg27–Pg1–Ps159	Cg27–Pg1–Ps160
	Cg27–Pg1–Ps161	Cg27–Pg1–Ps162	Cg27–Pg1–Ps163	Cg27–Pg1–Ps164
	Cg27–Pg1–Ps165	Cg27–Pg1–Ps166	Cg27–Pg1–Ps167	Cg27–Pg1–Ps168
10	Cg27–Pg1–Ps169	Cg27–Pg1–Ps170	Cg27–Pg1–Ps171	Cg27–Pg1–Ps172
	Cg27–Pg1–Ps173	Cg27–Pg1–Ps174	Cg27–Pg1–Ps175	Cg27–Pg1–Ps176
	Cg27–Pg1–Ps177	Cg27–Pg1–Ps178	Cg27–Pg1–Ps179	Cg27–Pg1–Ps180
	Cg27–Pg1–Ps181	Cg27–Pg1–Ps182	Cg27–Pg1–Ps183	Cg27–Pg1–Ps184
	Cg27–Pg1–Ps185	Cg27–Pg1–Ps186	Cg27–Pg1–Ps187	Cg27–Pg1–Ps188
15	Cg27–Pg1–Ps189	Cg27–Pg1–Ps190	Cg27–Pg1–Ps191	Cg27–Pg1–Ps192
	Cg27–Pg1–Ps193	Cg27–Pg1–Ps194	Cg27–Pg1–Ps195	Cg27–Pg1–Ps196
	Cg27–Pg1–Ps197	Cg27–Pg1–Ps198	Cg27–Pg1–Ps199	Cg27–Pg1–Ps200
	Cg27–Pg1–Ps201	Cg27–Pg1–Ps202	Cg27–Pg1–Ps203	Cg27–Pg1–Ps204
	Cg27–Pg1–Ps205	Cg27–Pg1–Ps206	Cg27–Pg1–Ps207	Cg27–Pg1–Ps208
20	Cg27–Pg1–Ps209	Cg27–Pg1–Ps210	Cg27–Pg1–Ps211	Cg27–Pg1–Ps212
	Cg27–Pg1–Ps213	Cg27–Pg1–Ps214	Cg27–Pg1–Ps215	Cg27–Pg1–Ps216
	Cg27–Pg1–Ps217	Cg27–Pg1–Ps218	Cg27–Pg1–Ps219	Cg27–Pg1–Ps220
	Cg27–Pg1–Ps221	Cg27–Pg1–Ps222	Cg27–Pg1–Ps223	Cg27–Pg1–Ps224
	Cg27–Pg1–Ps225	Cg27–Pg1–Ps226	Cg27–Pg1–Ps227	Cg27–Pg1–Ps228
25	Cg27–Pg1–Ps229	Cg27–Pg1–Ps230	Cg27–Pg1–Ps231	Cg27–Pg1–Ps232
	Cg27–Pg1–Ps233	Cg27–Pg1–Ps234	Cg27–Pg1–Ps235	Cg27–Pg1–Ps236
	Cg27–Pg1–Ps237	Cg27–Pg1–Ps238	Cg27–Pg1–Ps239	Cg27–Pg1–Ps240
	Cg27–Pg1–Ps241	Cg27–Pg1–Ps242	Cg27–Pg1–Ps243	
30	Cg28–Pg1–Ps1	Cg28–Pg1–Ps2	Cg28–Pg1–Ps3	Cg28–Pg1–Ps4
	Cg28–Pg1–Ps5	Cg28–Pg1–Ps6	Cg28–Pg1–Ps7	Cg28–Pg1–Ps8
	Cg28–Pg1–Ps9	Cg28–Pg1–Ps10	Cg28–Pg1–Ps11	Cg28–Pg1–Ps12
	Cg28–Pg1–Ps13	Cg28–Pg1–Ps14	Cg28–Pg1–Ps15	Cg28–Pg1–Ps16
	Cg28–Pg1–Ps17	Cg28–Pg1–Ps18	Cg28–Pg1–Ps19	Cg28–Pg1–Ps20
35	Cg28–Pg1–Ps21	Cg28–Pg1–Ps22	Cg28–Pg1–Ps23	Cg28–Pg1–Ps24
	Cg28–Pg1–Ps25	Cg28–Pg1–Ps26	Cg28–Pg1–Ps27	Cg28–Pg1–Ps28
	Cg28–Pg1–Ps29	Cg28–Pg1–Ps30	Cg28–Pg1–Ps31	Cg28–Pg1–Ps32
	Cg28–Pg1–Ps33	Cg28–Pg1–Ps34	Cg28–Pg1–Ps35	Cg28–Pg1–Ps36
	Cg28–Pg1–Ps37	Cg28–Pg1–Ps38	Cg28–Pg1–Ps39	Cg28–Pg1–Ps40
40	Cg28–Pg1–Ps41	Cg28–Pg1–Ps42	Cg28–Pg1–Ps43	Cg28–Pg1–Ps44
	Cg28–Pg1–Ps45	Cg28–Pg1–Ps46	Cg28–Pg1–Ps47	Cg28–Pg1–Ps48
	Cg28–Pg1–Ps49	Cg28–Pg1–Ps50	Cg28–Pg1–Ps51	Cg28–Pg1–Ps52
	Cg28–Pg1–Ps53	Cg28–Pg1–Ps54	Cg28–Pg1–Ps55	Cg28–Pg1–Ps56
	Cg28–Pg1–Ps57	Cg28–Pg1–Ps58	Cg28–Pg1–Ps59	Cg28–Pg1–Ps60
45	Cg28–Pg1–Ps61	Cg28–Pg1–Ps62	Cg28–Pg1–Ps63	Cg28–Pg1–Ps64
	Cg28–Pg1–Ps65	Cg28–Pg1–Ps66	Cg28–Pg1–Ps67	Cg28–Pg1–Ps68
	Cg28–Pg1–Ps69	Cg28–Pg1–Ps70	Cg28–Pg1–Ps71	Cg28–Pg1–Ps72
	Cg28–Pg1–Ps73	Cg28–Pg1–Ps74	Cg28–Pg1–Ps75	Cg28–Pg1–Ps76
	Cg28–Pg1–Ps77	Cg28–Pg1–Ps78	Cg28–Pg1–Ps79	Cg28–Pg1–Ps80
50	Cg28–Pg1–Ps81	Cg28–Pg1–Ps82	Cg28–Pg1–Ps83	Cg28–Pg1–Ps84
	Cg28–Pg1–Ps85	Cg28–Pg1–Ps86	Cg28–Pg1–Ps87	Cg28–Pg1–Ps88
	Cg28–Pg1–Ps89	Cg28–Pg1–Ps90	Cg28–Pg1–Ps91	Cg28–Pg1–Ps92

	Cg28–Pg1–Ps93	Cg28–Pg1–Ps94	Cg28–Pg1–Ps95	Cg28–Pg1–Ps96
	Cg28–Pg1–Ps97	Cg28–Pg1–Ps98	Cg28–Pg1–Ps99	Cg28–Pg1–Ps100
	Cg28–Pg1–Ps101	Cg28–Pg1–Ps102	Cg28–Pg1–Ps103	Cg28–Pg1–Ps104
	Cg28–Pg1–Ps105	Cg28–Pg1–Ps106	Cg28–Pg1–Ps107	Cg28–Pg1–Ps108
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	Cg28–Pg1–Ps113	Cg28–Pg1–Ps114	Cg28–Pg1–Ps115	Cg28–Pg1–Ps116
	Cg28–Pg1–Ps117	Cg28–Pg1–Ps118	Cg28–Pg1–Ps119	Cg28–Pg1–Ps120
	Cg28–Pg1–Ps121	Cg28–Pg1–Ps122	Cg28–Pg1–Ps123	Cg28–Pg1–Ps124
	Cg28–Pg1–Ps125	Cg28–Pg1–Ps126	Cg28–Pg1–Ps127	Cg28–Pg1–Ps128
10	Cg28–Pg1–Ps129	Cg28–Pg1–Ps130	Cg28–Pg1–Ps131	Cg28–Pg1–Ps132
	Cg28–Pg1–Ps133	Cg28–Pg1–Ps134	Cg28–Pg1–Ps135	Cg28–Pg1–Ps136
	Cg28–Pg1–Ps137	Cg28–Pg1–Ps138	Cg28–Pg1–Ps139	Cg28–Pg1–Ps140
	Cg28–Pg1–Ps141	Cg28–Pg1–Ps142	Cg28–Pg1–Ps143	Cg28–Pg1–Ps144
	Cg28–Pg1–Ps145	Cg28–Pg1–Ps146	Cg28–Pg1–Ps147	Cg28–Pg1–Ps148
15	Cg28–Pg1–Ps149	Cg28–Pg1–Ps150	Cg28–Pg1–Ps151	Cg28–Pg1–Ps152
	Cg28–Pg1–Ps153	Cg28–Pg1–Ps154	Cg28–Pg1–Ps155	Cg28–Pg1–Ps156
	Cg28–Pg1–Ps157	Cg28–Pg1–Ps158	Cg28–Pg1–Ps159	Cg28–Pg1–Ps160
	Cg28–Pg1–Ps161	Cg28–Pg1–Ps162	Cg28–Pg1–Ps163	Cg28–Pg1–Ps164
	Cg28–Pg1–Ps165	Cg28–Pg1–Ps166	Cg28–Pg1–Ps167	Cg28–Pg1–Ps168
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	Cg28–Pg1–Ps173	Cg28–Pg1–Ps174	Cg28–Pg1–Ps175	Cg28–Pg1–Ps176
	Cg28–Pg1–Ps177	Cg28–Pg1–Ps178	Cg28–Pg1–Ps179	Cg28–Pg1–Ps180
	Cg28–Pg1–Ps181	Cg28–Pg1–Ps182	Cg28–Pg1–Ps183	Cg28–Pg1–Ps184
	Cg28–Pg1–Ps185	Cg28–Pg1–Ps186	Cg28–Pg1–Ps187	Cg28–Pg1–Ps188
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	Cg28–Pg1–Ps193	Cg28–Pg1–Ps194	Cg28–Pg1–Ps195	Cg28–Pg1–Ps196
	Cg28–Pg1–Ps197	Cg28–Pg1–Ps198	Cg28–Pg1–Ps199	Cg28–Pg1–Ps200
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	Cg28–Pg1–Ps205	Cg28–Pg1–Ps206	Cg28–Pg1–Ps207	Cg28–Pg1–Ps208
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	Cg28–Pg1–Ps213	Cg28–Pg1–Ps214	Cg28–Pg1–Ps215	Cg28–Pg1–Ps216
	Cg28–Pg1–Ps217	Cg28–Pg1–Ps218	Cg28–Pg1–Ps219	Cg28–Pg1–Ps220
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	Cg28–Pg1–Ps225	Cg28–Pg1–Ps226	Cg28–Pg1–Ps227	Cg28–Pg1–Ps228
35	Cg28–Pg1–Ps229	Cg28–Pg1–Ps230	Cg28–Pg1–Ps231	Cg28–Pg1–Ps232
	Cg28–Pg1–Ps233	Cg28–Pg1–Ps234	Cg28–Pg1–Ps235	Cg28–Pg1–Ps236
	Cg28–Pg1–Ps237	Cg28–Pg1–Ps238	Cg28–Pg1–Ps239	Cg28–Pg1–Ps240
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	Cg29–Pg1–Ps25	Cg29–Pg1–Ps26	Cg29–Pg1–Ps27	Cg29–Pg1–Ps28
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	Cg29–Pg1–Ps37	Cg29–Pg1–Ps38	Cg29–Pg1–Ps39	Cg29–Pg1–Ps40
50	Cg29–Pg1–Ps41	Cg29–Pg1–Ps42	Cg29–Pg1–Ps43	Cg29–Pg1–Ps44
	Cg29–Pg1–Ps45	Cg29–Pg1–Ps46	Cg29–Pg1–Ps47	Cg29–Pg1–Ps48
	Cg29–Pg1–Ps49	Cg29–Pg1–Ps50	Cg29–Pg1–Ps51	Cg29–Pg1–Ps52

	Cg29–Pg1–Ps53	Cg29–Pg1–Ps54	Cg29–Pg1–Ps55	Cg29–Pg1–Ps56
	Cg29–Pg1–Ps57	Cg29–Pg1–Ps58	Cg29–Pg1–Ps59	Cg29–Pg1–Ps60
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	Cg29–Pg1–Ps65	Cg29–Pg1–Ps66	Cg29–Pg1–Ps67	Cg29–Pg1–Ps68
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	Cg29–Pg1–Ps73	Cg29–Pg1–Ps74	Cg29–Pg1–Ps75	Cg29–Pg1–Ps76
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	Cg29–Pg1–Ps81	Cg29–Pg1–Ps82	Cg29–Pg1–Ps83	Cg29–Pg1–Ps84
	Cg29–Pg1–Ps85	Cg29–Pg1–Ps86	Cg29–Pg1–Ps87	Cg29–Pg1–Ps88
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	Cg29–Pg1–Ps93	Cg29–Pg1–Ps94	Cg29–Pg1–Ps95	Cg29–Pg1–Ps96
	Cg29–Pg1–Ps97	Cg29–Pg1–Ps98	Cg29–Pg1–Ps99	Cg29–Pg1–Ps100
	Cg29–Pg1–Ps101	Cg29–Pg1–Ps102	Cg29–Pg1–Ps103	Cg29–Pg1–Ps104
	Cg29–Pg1–Ps105	Cg29–Pg1–Ps106	Cg29–Pg1–Ps107	Cg29–Pg1–Ps108
15	Cg29–Pg1–Ps109	Cg29–Pg1–Ps110	Cg29–Pg1–Ps111	Cg29–Pg1–Ps112
	Cg29–Pg1–Ps113	Cg29–Pg1–Ps114	Cg29–Pg1–Ps115	Cg29–Pg1–Ps116
	Cg29–Pg1–Ps117	Cg29–Pg1–Ps118	Cg29–Pg1–Ps119	Cg29–Pg1–Ps120
	Cg29–Pg1–Ps121	Cg29–Pg1–Ps122	Cg29–Pg1–Ps123	Cg29–Pg1–Ps124
	Cg29–Pg1–Ps125	Cg29–Pg1–Ps126	Cg29–Pg1–Ps127	Cg29–Pg1–Ps128
20	Cg29–Pg1–Ps129	Cg29–Pg1–Ps130	Cg29–Pg1–Ps131	Cg29–Pg1–Ps132
	Cg29–Pg1–Ps133	Cg29–Pg1–Ps134	Cg29–Pg1–Ps135	Cg29–Pg1–Ps136
	Cg29–Pg1–Ps137	Cg29–Pg1–Ps138	Cg29–Pg1–Ps139	Cg29–Pg1–Ps140
	Cg29–Pg1–Ps141	Cg29–Pg1–Ps142	Cg29–Pg1–Ps143	Cg29–Pg1–Ps144
	Cg29–Pg1–Ps145	Cg29–Pg1–Ps146	Cg29–Pg1–Ps147	Cg29–Pg1–Ps148
25	Cg29–Pg1–Ps149	Cg29–Pg1–Ps150	Cg29–Pg1–Ps151	Cg29–Pg1–Ps152
	Cg29–Pg1–Ps153	Cg29–Pg1–Ps154	Cg29–Pg1–Ps155	Cg29–Pg1–Ps156
	Cg29–Pg1–Ps157	Cg29–Pg1–Ps158	Cg29–Pg1–Ps159	Cg29–Pg1–Ps160
	Cg29–Pg1–Ps161	Cg29–Pg1–Ps162	Cg29–Pg1–Ps163	Cg29–Pg1–Ps164
	Cg29–Pg1–Ps165	Cg29–Pg1–Ps166	Cg29–Pg1–Ps167	Cg29–Pg1–Ps168
30	Cg29–Pg1–Ps169	Cg29–Pg1–Ps170	Cg29–Pg1–Ps171	Cg29–Pg1–Ps172
	Cg29–Pg1–Ps173	Cg29–Pg1–Ps174	Cg29–Pg1–Ps175	Cg29–Pg1–Ps176
	Cg29–Pg1–Ps177	Cg29–Pg1–Ps178	Cg29–Pg1–Ps179	Cg29–Pg1–Ps180
	Cg29–Pg1–Ps181	Cg29–Pg1–Ps182	Cg29–Pg1–Ps183	Cg29–Pg1–Ps184
	Cg29–Pg1–Ps185	Cg29–Pg1–Ps186	Cg29–Pg1–Ps187	Cg29–Pg1–Ps188
35	Cg29–Pg1–Ps189	Cg29–Pg1–Ps190	Cg29–Pg1–Ps191	Cg29–Pg1–Ps192
	Cg29–Pg1–Ps193	Cg29–Pg1–Ps194	Cg29–Pg1–Ps195	Cg29–Pg1–Ps196
	Cg29–Pg1–Ps197	Cg29–Pg1–Ps198	Cg29–Pg1–Ps199	Cg29–Pg1–Ps200
	Cg29–Pg1–Ps201	Cg29–Pg1–Ps202	Cg29–Pg1–Ps203	Cg29–Pg1–Ps204
	Cg29–Pg1–Ps205	Cg29–Pg1–Ps206	Cg29–Pg1–Ps207	Cg29–Pg1–Ps208
40	Cg29–Pg1–Ps209	Cg29–Pg1–Ps210	Cg29–Pg1–Ps211	Cg29–Pg1–Ps212
	Cg29–Pg1–Ps213	Cg29–Pg1–Ps214	Cg29–Pg1–Ps215	Cg29–Pg1–Ps216
	Cg29–Pg1–Ps217	Cg29–Pg1–Ps218	Cg29–Pg1–Ps219	Cg29–Pg1–Ps220
	Cg29–Pg1–Ps221	Cg29–Pg1–Ps222	Cg29–Pg1–Ps223	Cg29–Pg1–Ps224
	Cg29–Pg1–Ps225	Cg29–Pg1–Ps226	Cg29–Pg1–Ps227	Cg29–Pg1–Ps228
45	Cg29–Pg1–Ps229	Cg29–Pg1–Ps230	Cg29–Pg1–Ps231	Cg29–Pg1–Ps232
	Cg29–Pg1–Ps233	Cg29–Pg1–Ps234	Cg29–Pg1–Ps235	Cg29–Pg1–Ps236
	Cg29–Pg1–Ps237	Cg29–Pg1–Ps238	Cg29–Pg1–Ps239	Cg29–Pg1–Ps240
	Cg29–Pg1–Ps241	Cg29–Pg1–Ps242	Cg29–Pg1–Ps243	
50	Cg30–Pg1–Ps1	Cg30–Pg1–Ps2	Cg30–Pg1–Ps3	Cg30–Pg1–Ps4
	Cg30–Pg1–Ps5	Cg30–Pg1–Ps6	Cg30–Pg1–Ps7	Cg30–Pg1–Ps8
	Cg30–Pg1–Ps9	Cg30–Pg1–Ps10	Cg30–Pg1–Ps11	Cg30–Pg1–Ps12

	Cg30–Pg1–Ps13	Cg30–Pg1–Ps14	Cg30–Pg1–Ps15	Cg30–Pg1–Ps16
	Cg30–Pg1–Ps17	Cg30–Pg1–Ps18	Cg30–Pg1–Ps19	Cg30–Pg1–Ps20
	Cg30–Pg1–Ps21	Cg30–Pg1–Ps22	Cg30–Pg1–Ps23	Cg30–Pg1–Ps24
	Cg30–Pg1–Ps25	Cg30–Pg1–Ps26	Cg30–Pg1–Ps27	Cg30–Pg1–Ps28
5	Cg30–Pg1–Ps29	Cg30–Pg1–Ps30	Cg30–Pg1–Ps31	Cg30–Pg1–Ps32
	Cg30–Pg1–Ps33	Cg30–Pg1–Ps34	Cg30–Pg1–Ps35	Cg30–Pg1–Ps36
	Cg30–Pg1–Ps37	Cg30–Pg1–Ps38	Cg30–Pg1–Ps39	Cg30–Pg1–Ps40
	Cg30–Pg1–Ps41	Cg30–Pg1–Ps42	Cg30–Pg1–Ps43	Cg30–Pg1–Ps44
	Cg30–Pg1–Ps45	Cg30–Pg1–Ps46	Cg30–Pg1–Ps47	Cg30–Pg1–Ps48
10	Cg30–Pg1–Ps49	Cg30–Pg1–Ps50	Cg30–Pg1–Ps51	Cg30–Pg1–Ps52
	Cg30–Pg1–Ps53	Cg30–Pg1–Ps54	Cg30–Pg1–Ps55	Cg30–Pg1–Ps56
	Cg30–Pg1–Ps57	Cg30–Pg1–Ps58	Cg30–Pg1–Ps59	Cg30–Pg1–Ps60
	Cg30–Pg1–Ps61	Cg30–Pg1–Ps62	Cg30–Pg1–Ps63	Cg30–Pg1–Ps64
	Cg30–Pg1–Ps65	Cg30–Pg1–Ps66	Cg30–Pg1–Ps67	Cg30–Pg1–Ps68
15	Cg30–Pg1–Ps69	Cg30–Pg1–Ps70	Cg30–Pg1–Ps71	Cg30–Pg1–Ps72
	Cg30–Pg1–Ps73	Cg30–Pg1–Ps74	Cg30–Pg1–Ps75	Cg30–Pg1–Ps76
	Cg30–Pg1–Ps77	Cg30–Pg1–Ps78	Cg30–Pg1–Ps79	Cg30–Pg1–Ps80
	Cg30–Pg1–Ps81	Cg30–Pg1–Ps82	Cg30–Pg1–Ps83	Cg30–Pg1–Ps84
	Cg30–Pg1–Ps85	Cg30–Pg1–Ps86	Cg30–Pg1–Ps87	Cg30–Pg1–Ps88
20	Cg30–Pg1–Ps89	Cg30–Pg1–Ps90	Cg30–Pg1–Ps91	Cg30–Pg1–Ps92
	Cg30–Pg1–Ps93	Cg30–Pg1–Ps94	Cg30–Pg1–Ps95	Cg30–Pg1–Ps96
	Cg30–Pg1–Ps97	Cg30–Pg1–Ps98	Cg30–Pg1–Ps99	Cg30–Pg1–Ps100
	Cg30–Pg1–Ps101	Cg30–Pg1–Ps102	Cg30–Pg1–Ps103	Cg30–Pg1–Ps104
	Cg30–Pg1–Ps105	Cg30–Pg1–Ps106	Cg30–Pg1–Ps107	Cg30–Pg1–Ps108
25	Cg30–Pg1–Ps109	Cg30–Pg1–Ps110	Cg30–Pg1–Ps111	Cg30–Pg1–Ps112
	Cg30–Pg1–Ps113	Cg30–Pg1–Ps114	Cg30–Pg1–Ps115	Cg30–Pg1–Ps116
	Cg30–Pg1–Ps117	Cg30–Pg1–Ps118	Cg30–Pg1–Ps119	Cg30–Pg1–Ps120
	Cg30–Pg1–Ps121	Cg30–Pg1–Ps122	Cg30–Pg1–Ps123	Cg30–Pg1–Ps124
	Cg30–Pg1–Ps125	Cg30–Pg1–Ps126	Cg30–Pg1–Ps127	Cg30–Pg1–Ps128
30	Cg30–Pg1–Ps129	Cg30–Pg1–Ps130	Cg30–Pg1–Ps131	Cg30–Pg1–Ps132
	Cg30–Pg1–Ps133	Cg30–Pg1–Ps134	Cg30–Pg1–Ps135	Cg30–Pg1–Ps136
	Cg30–Pg1–Ps137	Cg30–Pg1–Ps138	Cg30–Pg1–Ps139	Cg30–Pg1–Ps140
	Cg30–Pg1–Ps141	Cg30–Pg1–Ps142	Cg30–Pg1–Ps143	Cg30–Pg1–Ps144
	Cg30–Pg1–Ps145	Cg30–Pg1–Ps146	Cg30–Pg1–Ps147	Cg30–Pg1–Ps148
35	Cg30–Pg1–Ps149	Cg30–Pg1–Ps150	Cg30–Pg1–Ps151	Cg30–Pg1–Ps152
	Cg30–Pg1–Ps153	Cg30–Pg1–Ps154	Cg30–Pg1–Ps155	Cg30–Pg1–Ps156
	Cg30–Pg1–Ps157	Cg30–Pg1–Ps158	Cg30–Pg1–Ps159	Cg30–Pg1–Ps160
	Cg30–Pg1–Ps161	Cg30–Pg1–Ps162	Cg30–Pg1–Ps163	Cg30–Pg1–Ps164
	Cg30–Pg1–Ps165	Cg30–Pg1–Ps166	Cg30–Pg1–Ps167	Cg30–Pg1–Ps168
40	Cg30–Pg1–Ps169	Cg30–Pg1–Ps170	Cg30–Pg1–Ps171	Cg30–Pg1–Ps172
	Cg30–Pg1–Ps173	Cg30–Pg1–Ps174	Cg30–Pg1–Ps175	Cg30–Pg1–Ps176
	Cg30–Pg1–Ps177	Cg30–Pg1–Ps178	Cg30–Pg1–Ps179	Cg30–Pg1–Ps180
	Cg30–Pg1–Ps181	Cg30–Pg1–Ps182	Cg30–Pg1–Ps183	Cg30–Pg1–Ps184
	Cg30–Pg1–Ps185	Cg30–Pg1–Ps186	Cg30–Pg1–Ps187	Cg30–Pg1–Ps188
45	Cg30–Pg1–Ps189	Cg30–Pg1–Ps190	Cg30–Pg1–Ps191	Cg30–Pg1–Ps192
	Cg30–Pg1–Ps193	Cg30–Pg1–Ps194	Cg30–Pg1–Ps195	Cg30–Pg1–Ps196
	Cg30–Pg1–Ps197	Cg30–Pg1–Ps198	Cg30–Pg1–Ps199	Cg30–Pg1–Ps200
	Cg30–Pg1–Ps201	Cg30–Pg1–Ps202	Cg30–Pg1–Ps203	Cg30–Pg1–Ps204
	Cg30–Pg1–Ps205	Cg30–Pg1–Ps206	Cg30–Pg1–Ps207	Cg30–Pg1–Ps208
50	Cg30–Pg1–Ps209	Cg30–Pg1–Ps210	Cg30–Pg1–Ps211	Cg30–Pg1–Ps212
	Cg30–Pg1–Ps213	Cg30–Pg1–Ps214	Cg30–Pg1–Ps215	Cg30–Pg1–Ps216
	Cg30–Pg1–Ps217	Cg30–Pg1–Ps218	Cg30–Pg1–Ps219	Cg30–Pg1–Ps220

	Cg30–Pg1–Ps221	Cg30–Pg1–Ps222	Cg30–Pg1–Ps223	Cg30–Pg1–Ps224
	Cg30–Pg1–Ps225	Cg30–Pg1–Ps226	Cg30–Pg1–Ps227	Cg30–Pg1–Ps228
	Cg30–Pg1–Ps229	Cg30–Pg1–Ps230	Cg30–Pg1–Ps231	Cg30–Pg1–Ps232
	Cg30–Pg1–Ps233	Cg30–Pg1–Ps234	Cg30–Pg1–Ps235	Cg30–Pg1–Ps236
5	Cg30–Pg1–Ps237	Cg30–Pg1–Ps238	Cg30–Pg1–Ps239	Cg30–Pg1–Ps240
	Cg30–Pg1–Ps241	Cg30–Pg1–Ps242	Cg30–Pg1–Ps243	
	Cg31–Pg1–Ps1	Cg31–Pg1–Ps2	Cg31–Pg1–Ps3	Cg31–Pg1–Ps4
	Cg31–Pg1–Ps5	Cg31–Pg1–Ps6	Cg31–Pg1–Ps7	Cg31–Pg1–Ps8
10	Cg31–Pg1–Ps9	Cg31–Pg1–Ps10	Cg31–Pg1–Ps11	Cg31–Pg1–Ps12
	Cg31–Pg1–Ps13	Cg31–Pg1–Ps14	Cg31–Pg1–Ps15	Cg31–Pg1–Ps16
	Cg31–Pg1–Ps17	Cg31–Pg1–Ps18	Cg31–Pg1–Ps19	Cg31–Pg1–Ps20
	Cg31–Pg1–Ps21	Cg31–Pg1–Ps22	Cg31–Pg1–Ps23	Cg31–Pg1–Ps24
	Cg31–Pg1–Ps25	Cg31–Pg1–Ps26	Cg31–Pg1–Ps27	Cg31–Pg1–Ps28
15	Cg31–Pg1–Ps29	Cg31–Pg1–Ps30	Cg31–Pg1–Ps31	Cg31–Pg1–Ps32
	Cg31–Pg1–Ps33	Cg31–Pg1–Ps34	Cg31–Pg1–Ps35	Cg31–Pg1–Ps36
	Cg31–Pg1–Ps37	Cg31–Pg1–Ps38	Cg31–Pg1–Ps39	Cg31–Pg1–Ps40
	Cg31–Pg1–Ps41	Cg31–Pg1–Ps42	Cg31–Pg1–Ps43	Cg31–Pg1–Ps44
	Cg31–Pg1–Ps45	Cg31–Pg1–Ps46	Cg31–Pg1–Ps47	Cg31–Pg1–Ps48
20	Cg31–Pg1–Ps49	Cg31–Pg1–Ps50	Cg31–Pg1–Ps51	Cg31–Pg1–Ps52
	Cg31–Pg1–Ps53	Cg31–Pg1–Ps54	Cg31–Pg1–Ps55	Cg31–Pg1–Ps56
	Cg31–Pg1–Ps57	Cg31–Pg1–Ps58	Cg31–Pg1–Ps59	Cg31–Pg1–Ps60
	Cg31–Pg1–Ps61	Cg31–Pg1–Ps62	Cg31–Pg1–Ps63	Cg31–Pg1–Ps64
	Cg31–Pg1–Ps65	Cg31–Pg1–Ps66	Cg31–Pg1–Ps67	Cg31–Pg1–Ps68
25	Cg31–Pg1–Ps69	Cg31–Pg1–Ps70	Cg31–Pg1–Ps71	Cg31–Pg1–Ps72
	Cg31–Pg1–Ps73	Cg31–Pg1–Ps74	Cg31–Pg1–Ps75	Cg31–Pg1–Ps76
	Cg31–Pg1–Ps77	Cg31–Pg1–Ps78	Cg31–Pg1–Ps79	Cg31–Pg1–Ps80
	Cg31–Pg1–Ps81	Cg31–Pg1–Ps82	Cg31–Pg1–Ps83	Cg31–Pg1–Ps84
	Cg31–Pg1–Ps85	Cg31–Pg1–Ps86	Cg31–Pg1–Ps87	Cg31–Pg1–Ps88
30	Cg31–Pg1–Ps89	Cg31–Pg1–Ps90	Cg31–Pg1–Ps91	Cg31–Pg1–Ps92
	Cg31–Pg1–Ps93	Cg31–Pg1–Ps94	Cg31–Pg1–Ps95	Cg31–Pg1–Ps96
	Cg31–Pg1–Ps97	Cg31–Pg1–Ps98	Cg31–Pg1–Ps99	Cg31–Pg1–Ps100
	Cg31–Pg1–Ps101	Cg31–Pg1–Ps102	Cg31–Pg1–Ps103	Cg31–Pg1–Ps104
	Cg31–Pg1–Ps105	Cg31–Pg1–Ps106	Cg31–Pg1–Ps107	Cg31–Pg1–Ps108
35	Cg31–Pg1–Ps109	Cg31–Pg1–Ps110	Cg31–Pg1–Ps111	Cg31–Pg1–Ps112
	Cg31–Pg1–Ps113	Cg31–Pg1–Ps114	Cg31–Pg1–Ps115	Cg31–Pg1–Ps116
	Cg31–Pg1–Ps117	Cg31–Pg1–Ps118	Cg31–Pg1–Ps119	Cg31–Pg1–Ps120
	Cg31–Pg1–Ps121	Cg31–Pg1–Ps122	Cg31–Pg1–Ps123	Cg31–Pg1–Ps124
	Cg31–Pg1–Ps125	Cg31–Pg1–Ps126	Cg31–Pg1–Ps127	Cg31–Pg1–Ps128
40	Cg31–Pg1–Ps129	Cg31–Pg1–Ps130	Cg31–Pg1–Ps131	Cg31–Pg1–Ps132
	Cg31–Pg1–Ps133	Cg31–Pg1–Ps134	Cg31–Pg1–Ps135	Cg31–Pg1–Ps136
	Cg31–Pg1–Ps137	Cg31–Pg1–Ps138	Cg31–Pg1–Ps139	Cg31–Pg1–Ps140
	Cg31–Pg1–Ps141	Cg31–Pg1–Ps142	Cg31–Pg1–Ps143	Cg31–Pg1–Ps144
	Cg31–Pg1–Ps145	Cg31–Pg1–Ps146	Cg31–Pg1–Ps147	Cg31–Pg1–Ps148
45	Cg31–Pg1–Ps149	Cg31–Pg1–Ps150	Cg31–Pg1–Ps151	Cg31–Pg1–Ps152
	Cg31–Pg1–Ps153	Cg31–Pg1–Ps154	Cg31–Pg1–Ps155	Cg31–Pg1–Ps156
	Cg31–Pg1–Ps157	Cg31–Pg1–Ps158	Cg31–Pg1–Ps159	Cg31–Pg1–Ps160
	Cg31–Pg1–Ps161	Cg31–Pg1–Ps162	Cg31–Pg1–Ps163	Cg31–Pg1–Ps164
	Cg31–Pg1–Ps165	Cg31–Pg1–Ps166	Cg31–Pg1–Ps167	Cg31–Pg1–Ps168
50	Cg31–Pg1–Ps169	Cg31–Pg1–Ps170	Cg31–Pg1–Ps171	Cg31–Pg1–Ps172
	Cg31–Pg1–Ps173	Cg31–Pg1–Ps174	Cg31–Pg1–Ps175	Cg31–Pg1–Ps176
	Cg31–Pg1–Ps177	Cg31–Pg1–Ps178	Cg31–Pg1–Ps179	Cg31–Pg1–Ps180

	Cg31–Pg1–Ps181	Cg31–Pg1–Ps182	Cg31–Pg1–Ps183	Cg31–Pg1–Ps184
	Cg31–Pg1–Ps185	Cg31–Pg1–Ps186	Cg31–Pg1–Ps187	Cg31–Pg1–Ps188
	Cg31–Pg1–Ps189	Cg31–Pg1–Ps190	Cg31–Pg1–Ps191	Cg31–Pg1–Ps192
	Cg31–Pg1–Ps193	Cg31–Pg1–Ps194	Cg31–Pg1–Ps195	Cg31–Pg1–Ps196
5	Cg31–Pg1–Ps197	Cg31–Pg1–Ps198	Cg31–Pg1–Ps199	Cg31–Pg1–Ps200
	Cg31–Pg1–Ps201	Cg31–Pg1–Ps202	Cg31–Pg1–Ps203	Cg31–Pg1–Ps204
	Cg31–Pg1–Ps205	Cg31–Pg1–Ps206	Cg31–Pg1–Ps207	Cg31–Pg1–Ps208
	Cg31–Pg1–Ps209	Cg31–Pg1–Ps210	Cg31–Pg1–Ps211	Cg31–Pg1–Ps212
	Cg31–Pg1–Ps213	Cg31–Pg1–Ps214	Cg31–Pg1–Ps215	Cg31–Pg1–Ps216
10	Cg31–Pg1–Ps217	Cg31–Pg1–Ps218	Cg31–Pg1–Ps219	Cg31–Pg1–Ps220
	Cg31–Pg1–Ps221	Cg31–Pg1–Ps222	Cg31–Pg1–Ps223	Cg31–Pg1–Ps224
	Cg31–Pg1–Ps225	Cg31–Pg1–Ps226	Cg31–Pg1–Ps227	Cg31–Pg1–Ps228
	Cg31–Pg1–Ps229	Cg31–Pg1–Ps230	Cg31–Pg1–Ps231	Cg31–Pg1–Ps232
	Cg31–Pg1–Ps233	Cg31–Pg1–Ps234	Cg31–Pg1–Ps235	Cg31–Pg1–Ps236
15	Cg31–Pg1–Ps237	Cg31–Pg1–Ps238	Cg31–Pg1–Ps239	Cg31–Pg1–Ps240
	Cg31–Pg1–Ps241	Cg31–Pg1–Ps242	Cg31–Pg1–Ps243	
	Cg32–Pg1–Ps1	Cg32–Pg1–Ps2	Cg32–Pg1–Ps3	Cg32–Pg1–Ps4
	Cg32–Pg1–Ps5	Cg32–Pg1–Ps6	Cg32–Pg1–Ps7	Cg32–Pg1–Ps8
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	Cg32–Pg1–Ps13	Cg32–Pg1–Ps14	Cg32–Pg1–Ps15	Cg32–Pg1–Ps16
	Cg32–Pg1–Ps17	Cg32–Pg1–Ps18	Cg32–Pg1–Ps19	Cg32–Pg1–Ps20
	Cg32–Pg1–Ps21	Cg32–Pg1–Ps22	Cg32–Pg1–Ps23	Cg32–Pg1–Ps24
	Cg32–Pg1–Ps25	Cg32–Pg1–Ps26	Cg32–Pg1–Ps27	Cg32–Pg1–Ps28
25	Cg32–Pg1–Ps29	Cg32–Pg1–Ps30	Cg32–Pg1–Ps31	Cg32–Pg1–Ps32
	Cg32–Pg1–Ps33	Cg32–Pg1–Ps34	Cg32–Pg1–Ps35	Cg32–Pg1–Ps36
	Cg32–Pg1–Ps37	Cg32–Pg1–Ps38	Cg32–Pg1–Ps39	Cg32–Pg1–Ps40
	Cg32–Pg1–Ps41	Cg32–Pg1–Ps42	Cg32–Pg1–Ps43	Cg32–Pg1–Ps44
	Cg32–Pg1–Ps45	Cg32–Pg1–Ps46	Cg32–Pg1–Ps47	Cg32–Pg1–Ps48
30	Cg32–Pg1–Ps49	Cg32–Pg1–Ps50	Cg32–Pg1–Ps51	Cg32–Pg1–Ps52
	Cg32–Pg1–Ps53	Cg32–Pg1–Ps54	Cg32–Pg1–Ps55	Cg32–Pg1–Ps56
	Cg32–Pg1–Ps57	Cg32–Pg1–Ps58	Cg32–Pg1–Ps59	Cg32–Pg1–Ps60
	Cg32–Pg1–Ps61	Cg32–Pg1–Ps62	Cg32–Pg1–Ps63	Cg32–Pg1–Ps64
	Cg32–Pg1–Ps65	Cg32–Pg1–Ps66	Cg32–Pg1–Ps67	Cg32–Pg1–Ps68
35	Cg32–Pg1–Ps69	Cg32–Pg1–Ps70	Cg32–Pg1–Ps71	Cg32–Pg1–Ps72
	Cg32–Pg1–Ps73	Cg32–Pg1–Ps74	Cg32–Pg1–Ps75	Cg32–Pg1–Ps76
	Cg32–Pg1–Ps77	Cg32–Pg1–Ps78	Cg32–Pg1–Ps79	Cg32–Pg1–Ps80
	Cg32–Pg1–Ps81	Cg32–Pg1–Ps82	Cg32–Pg1–Ps83	Cg32–Pg1–Ps84
	Cg32–Pg1–Ps85	Cg32–Pg1–Ps86	Cg32–Pg1–Ps87	Cg32–Pg1–Ps88
40	Cg32–Pg1–Ps89	Cg32–Pg1–Ps90	Cg32–Pg1–Ps91	Cg32–Pg1–Ps92
	Cg32–Pg1–Ps93	Cg32–Pg1–Ps94	Cg32–Pg1–Ps95	Cg32–Pg1–Ps96
	Cg32–Pg1–Ps97	Cg32–Pg1–Ps98	Cg32–Pg1–Ps99	Cg32–Pg1–Ps100
	Cg32–Pg1–Ps101	Cg32–Pg1–Ps102	Cg32–Pg1–Ps103	Cg32–Pg1–Ps104
	Cg32–Pg1–Ps105	Cg32–Pg1–Ps106	Cg32–Pg1–Ps107	Cg32–Pg1–Ps108
45	Cg32–Pg1–Ps109	Cg32–Pg1–Ps110	Cg32–Pg1–Ps111	Cg32–Pg1–Ps112
	Cg32–Pg1–Ps113	Cg32–Pg1–Ps114	Cg32–Pg1–Ps115	Cg32–Pg1–Ps116
	Cg32–Pg1–Ps117	Cg32–Pg1–Ps118	Cg32–Pg1–Ps119	Cg32–Pg1–Ps120
	Cg32–Pg1–Ps121	Cg32–Pg1–Ps122	Cg32–Pg1–Ps123	Cg32–Pg1–Ps124
	Cg32–Pg1–Ps125	Cg32–Pg1–Ps126	Cg32–Pg1–Ps127	Cg32–Pg1–Ps128
50	Cg32–Pg1–Ps129	Cg32–Pg1–Ps130	Cg32–Pg1–Ps131	Cg32–Pg1–Ps132
	Cg32–Pg1–Ps133	Cg32–Pg1–Ps134	Cg32–Pg1–Ps135	Cg32–Pg1–Ps136
	Cg32–Pg1–Ps137	Cg32–Pg1–Ps138	Cg32–Pg1–Ps139	Cg32–Pg1–Ps140

	Cg32–Pg1–Ps141	Cg32–Pg1–Ps142	Cg32–Pg1–Ps143	Cg32–Pg1–Ps144
	Cg32–Pg1–Ps145	Cg32–Pg1–Ps146	Cg32–Pg1–Ps147	Cg32–Pg1–Ps148
	Cg32–Pg1–Ps149	Cg32–Pg1–Ps150	Cg32–Pg1–Ps151	Cg32–Pg1–Ps152
	Cg32–Pg1–Ps153	Cg32–Pg1–Ps154	Cg32–Pg1–Ps155	Cg32–Pg1–Ps156
5	Cg32–Pg1–Ps157	Cg32–Pg1–Ps158	Cg32–Pg1–Ps159	Cg32–Pg1–Ps160
	Cg32–Pg1–Ps161	Cg32–Pg1–Ps162	Cg32–Pg1–Ps163	Cg32–Pg1–Ps164
	Cg32–Pg1–Ps165	Cg32–Pg1–Ps166	Cg32–Pg1–Ps167	Cg32–Pg1–Ps168
	Cg32–Pg1–Ps169	Cg32–Pg1–Ps170	Cg32–Pg1–Ps171	Cg32–Pg1–Ps172
	Cg32–Pg1–Ps173	Cg32–Pg1–Ps174	Cg32–Pg1–Ps175	Cg32–Pg1–Ps176
10	Cg32–Pg1–Ps177	Cg32–Pg1–Ps178	Cg32–Pg1–Ps179	Cg32–Pg1–Ps180
	Cg32–Pg1–Ps181	Cg32–Pg1–Ps182	Cg32–Pg1–Ps183	Cg32–Pg1–Ps184
	Cg32–Pg1–Ps185	Cg32–Pg1–Ps186	Cg32–Pg1–Ps187	Cg32–Pg1–Ps188
	Cg32–Pg1–Ps189	Cg32–Pg1–Ps190	Cg32–Pg1–Ps191	Cg32–Pg1–Ps192
	Cg32–Pg1–Ps193	Cg32–Pg1–Ps194	Cg32–Pg1–Ps195	Cg32–Pg1–Ps196
15	Cg32–Pg1–Ps197	Cg32–Pg1–Ps198	Cg32–Pg1–Ps199	Cg32–Pg1–Ps200
	Cg32–Pg1–Ps201	Cg32–Pg1–Ps202	Cg32–Pg1–Ps203	Cg32–Pg1–Ps204
	Cg32–Pg1–Ps205	Cg32–Pg1–Ps206	Cg32–Pg1–Ps207	Cg32–Pg1–Ps208
	Cg32–Pg1–Ps209	Cg32–Pg1–Ps210	Cg32–Pg1–Ps211	Cg32–Pg1–Ps212
	Cg32–Pg1–Ps213	Cg32–Pg1–Ps214	Cg32–Pg1–Ps215	Cg32–Pg1–Ps216
20	Cg32–Pg1–Ps217	Cg32–Pg1–Ps218	Cg32–Pg1–Ps219	Cg32–Pg1–Ps220
	Cg32–Pg1–Ps221	Cg32–Pg1–Ps222	Cg32–Pg1–Ps223	Cg32–Pg1–Ps224
	Cg32–Pg1–Ps225	Cg32–Pg1–Ps226	Cg32–Pg1–Ps227	Cg32–Pg1–Ps228
	Cg32–Pg1–Ps229	Cg32–Pg1–Ps230	Cg32–Pg1–Ps231	Cg32–Pg1–Ps232
	Cg32–Pg1–Ps233	Cg32–Pg1–Ps234	Cg32–Pg1–Ps235	Cg32–Pg1–Ps236
25	Cg32–Pg1–Ps237	Cg32–Pg1–Ps238	Cg32–Pg1–Ps239	Cg32–Pg1–Ps240
	Cg32–Pg1–Ps241	Cg32–Pg1–Ps242	Cg32–Pg1–Ps243	

	Cg33–Pg1–Ps1	Cg33–Pg1–Ps2	Cg33–Pg1–Ps3	Cg33–Pg1–Ps4
	Cg33–Pg1–Ps5	Cg33–Pg1–Ps6	Cg33–Pg1–Ps7	Cg33–Pg1–Ps8
30	Cg33–Pg1–Ps9	Cg33–Pg1–Ps10	Cg33–Pg1–Ps11	Cg33–Pg1–Ps12
	Cg33–Pg1–Ps13	Cg33–Pg1–Ps14	Cg33–Pg1–Ps15	Cg33–Pg1–Ps16
	Cg33–Pg1–Ps17	Cg33–Pg1–Ps18	Cg33–Pg1–Ps19	Cg33–Pg1–Ps20
	Cg33–Pg1–Ps21	Cg33–Pg1–Ps22	Cg33–Pg1–Ps23	Cg33–Pg1–Ps24
	Cg33–Pg1–Ps25	Cg33–Pg1–Ps26	Cg33–Pg1–Ps27	Cg33–Pg1–Ps28
35	Cg33–Pg1–Ps29	Cg33–Pg1–Ps30	Cg33–Pg1–Ps31	Cg33–Pg1–Ps32
	Cg33–Pg1–Ps33	Cg33–Pg1–Ps34	Cg33–Pg1–Ps35	Cg33–Pg1–Ps36
	Cg33–Pg1–Ps37	Cg33–Pg1–Ps38	Cg33–Pg1–Ps39	Cg33–Pg1–Ps40
	Cg33–Pg1–Ps41	Cg33–Pg1–Ps42	Cg33–Pg1–Ps43	Cg33–Pg1–Ps44
	Cg33–Pg1–Ps45	Cg33–Pg1–Ps46	Cg33–Pg1–Ps47	Cg33–Pg1–Ps48
40	Cg33–Pg1–Ps49	Cg33–Pg1–Ps50	Cg33–Pg1–Ps51	Cg33–Pg1–Ps52
	Cg33–Pg1–Ps53	Cg33–Pg1–Ps54	Cg33–Pg1–Ps55	Cg33–Pg1–Ps56
	Cg33–Pg1–Ps57	Cg33–Pg1–Ps58	Cg33–Pg1–Ps59	Cg33–Pg1–Ps60
	Cg33–Pg1–Ps61	Cg33–Pg1–Ps62	Cg33–Pg1–Ps63	Cg33–Pg1–Ps64
	Cg33–Pg1–Ps65	Cg33–Pg1–Ps66	Cg33–Pg1–Ps67	Cg33–Pg1–Ps68
45	Cg33–Pg1–Ps69	Cg33–Pg1–Ps70	Cg33–Pg1–Ps71	Cg33–Pg1–Ps72
	Cg33–Pg1–Ps73	Cg33–Pg1–Ps74	Cg33–Pg1–Ps75	Cg33–Pg1–Ps76
	Cg33–Pg1–Ps77	Cg33–Pg1–Ps78	Cg33–Pg1–Ps79	Cg33–Pg1–Ps80
	Cg33–Pg1–Ps81	Cg33–Pg1–Ps82	Cg33–Pg1–Ps83	Cg33–Pg1–Ps84
	Cg33–Pg1–Ps85	Cg33–Pg1–Ps86	Cg33–Pg1–Ps87	Cg33–Pg1–Ps88
50	Cg33–Pg1–Ps89	Cg33–Pg1–Ps90	Cg33–Pg1–Ps91	Cg33–Pg1–Ps92
	Cg33–Pg1–Ps93	Cg33–Pg1–Ps94	Cg33–Pg1–Ps95	Cg33–Pg1–Ps96
	Cg33–Pg1–Ps97	Cg33–Pg1–Ps98	Cg33–Pg1–Ps99	Cg33–Pg1–Ps100

	Cg33–Pg1–Ps101	Cg33–Pg1–Ps102	Cg33–Pg1–Ps103	Cg33–Pg1–Ps104
	Cg33–Pg1–Ps105	Cg33–Pg1–Ps106	Cg33–Pg1–Ps107	Cg33–Pg1–Ps108
	Cg33–Pg1–Ps109	Cg33–Pg1–Ps110	Cg33–Pg1–Ps111	Cg33–Pg1–Ps112
	Cg33–Pg1–Ps113	Cg33–Pg1–Ps114	Cg33–Pg1–Ps115	Cg33–Pg1–Ps116
5	Cg33–Pg1–Ps117	Cg33–Pg1–Ps118	Cg33–Pg1–Ps119	Cg33–Pg1–Ps120
	Cg33–Pg1–Ps121	Cg33–Pg1–Ps122	Cg33–Pg1–Ps123	Cg33–Pg1–Ps124
	Cg33–Pg1–Ps125	Cg33–Pg1–Ps126	Cg33–Pg1–Ps127	Cg33–Pg1–Ps128
	Cg33–Pg1–Ps129	Cg33–Pg1–Ps130	Cg33–Pg1–Ps131	Cg33–Pg1–Ps132
	Cg33–Pg1–Ps133	Cg33–Pg1–Ps134	Cg33–Pg1–Ps135	Cg33–Pg1–Ps136
10	Cg33–Pg1–Ps137	Cg33–Pg1–Ps138	Cg33–Pg1–Ps139	Cg33–Pg1–Ps140
	Cg33–Pg1–Ps141	Cg33–Pg1–Ps142	Cg33–Pg1–Ps143	Cg33–Pg1–Ps144
	Cg33–Pg1–Ps145	Cg33–Pg1–Ps146	Cg33–Pg1–Ps147	Cg33–Pg1–Ps148
	Cg33–Pg1–Ps149	Cg33–Pg1–Ps150	Cg33–Pg1–Ps151	Cg33–Pg1–Ps152
	Cg33–Pg1–Ps153	Cg33–Pg1–Ps154	Cg33–Pg1–Ps155	Cg33–Pg1–Ps156
15	Cg33–Pg1–Ps157	Cg33–Pg1–Ps158	Cg33–Pg1–Ps159	Cg33–Pg1–Ps160
	Cg33–Pg1–Ps161	Cg33–Pg1–Ps162	Cg33–Pg1–Ps163	Cg33–Pg1–Ps164
	Cg33–Pg1–Ps165	Cg33–Pg1–Ps166	Cg33–Pg1–Ps167	Cg33–Pg1–Ps168
	Cg33–Pg1–Ps169	Cg33–Pg1–Ps170	Cg33–Pg1–Ps171	Cg33–Pg1–Ps172
	Cg33–Pg1–Ps173	Cg33–Pg1–Ps174	Cg33–Pg1–Ps175	Cg33–Pg1–Ps176
20	Cg33–Pg1–Ps177	Cg33–Pg1–Ps178	Cg33–Pg1–Ps179	Cg33–Pg1–Ps180
	Cg33–Pg1–Ps181	Cg33–Pg1–Ps182	Cg33–Pg1–Ps183	Cg33–Pg1–Ps184
	Cg33–Pg1–Ps185	Cg33–Pg1–Ps186	Cg33–Pg1–Ps187	Cg33–Pg1–Ps188
	Cg33–Pg1–Ps189	Cg33–Pg1–Ps190	Cg33–Pg1–Ps191	Cg33–Pg1–Ps192
	Cg33–Pg1–Ps193	Cg33–Pg1–Ps194	Cg33–Pg1–Ps195	Cg33–Pg1–Ps196
25	Cg33–Pg1–Ps197	Cg33–Pg1–Ps198	Cg33–Pg1–Ps199	Cg33–Pg1–Ps200
	Cg33–Pg1–Ps201	Cg33–Pg1–Ps202	Cg33–Pg1–Ps203	Cg33–Pg1–Ps204
	Cg33–Pg1–Ps205	Cg33–Pg1–Ps206	Cg33–Pg1–Ps207	Cg33–Pg1–Ps208
	Cg33–Pg1–Ps209	Cg33–Pg1–Ps210	Cg33–Pg1–Ps211	Cg33–Pg1–Ps212
	Cg33–Pg1–Ps213	Cg33–Pg1–Ps214	Cg33–Pg1–Ps215	Cg33–Pg1–Ps216
30	Cg33–Pg1–Ps217	Cg33–Pg1–Ps218	Cg33–Pg1–Ps219	Cg33–Pg1–Ps220
	Cg33–Pg1–Ps221	Cg33–Pg1–Ps222	Cg33–Pg1–Ps223	Cg33–Pg1–Ps224
	Cg33–Pg1–Ps225	Cg33–Pg1–Ps226	Cg33–Pg1–Ps227	Cg33–Pg1–Ps228
	Cg33–Pg1–Ps229	Cg33–Pg1–Ps230	Cg33–Pg1–Ps231	Cg33–Pg1–Ps232
	Cg33–Pg1–Ps233	Cg33–Pg1–Ps234	Cg33–Pg1–Ps235	Cg33–Pg1–Ps236
35	Cg33–Pg1–Ps237	Cg33–Pg1–Ps238	Cg33–Pg1–Ps239	Cg33–Pg1–Ps240
	Cg33–Pg1–Ps241	Cg33–Pg1–Ps242	Cg33–Pg1–Ps243	
	Cg34–Pg1–Ps1	Cg34–Pg1–Ps2	Cg34–Pg1–Ps3	Cg34–Pg1–Ps4
	Cg34–Pg1–Ps5	Cg34–Pg1–Ps6	Cg34–Pg1–Ps7	Cg34–Pg1–Ps8
40	Cg34–Pg1–Ps9	Cg34–Pg1–Ps10	Cg34–Pg1–Ps11	Cg34–Pg1–Ps12
	Cg34–Pg1–Ps13	Cg34–Pg1–Ps14	Cg34–Pg1–Ps15	Cg34–Pg1–Ps16
	Cg34–Pg1–Ps17	Cg34–Pg1–Ps18	Cg34–Pg1–Ps19	Cg34–Pg1–Ps20
	Cg34–Pg1–Ps21	Cg34–Pg1–Ps22	Cg34–Pg1–Ps23	Cg34–Pg1–Ps24
	Cg34–Pg1–Ps25	Cg34–Pg1–Ps26	Cg34–Pg1–Ps27	Cg34–Pg1–Ps28
45	Cg34–Pg1–Ps29	Cg34–Pg1–Ps30	Cg34–Pg1–Ps31	Cg34–Pg1–Ps32
	Cg34–Pg1–Ps33	Cg34–Pg1–Ps34	Cg34–Pg1–Ps35	Cg34–Pg1–Ps36
	Cg34–Pg1–Ps37	Cg34–Pg1–Ps38	Cg34–Pg1–Ps39	Cg34–Pg1–Ps40
	Cg34–Pg1–Ps41	Cg34–Pg1–Ps42	Cg34–Pg1–Ps43	Cg34–Pg1–Ps44
	Cg34–Pg1–Ps45	Cg34–Pg1–Ps46	Cg34–Pg1–Ps47	Cg34–Pg1–Ps48
50	Cg34–Pg1–Ps49	Cg34–Pg1–Ps50	Cg34–Pg1–Ps51	Cg34–Pg1–Ps52
	Cg34–Pg1–Ps53	Cg34–Pg1–Ps54	Cg34–Pg1–Ps55	Cg34–Pg1–Ps56
	Cg34–Pg1–Ps57	Cg34–Pg1–Ps58	Cg34–Pg1–Ps59	Cg34–Pg1–Ps60

	Cg34-Pg1-Ps61	Cg34-Pg1-Ps62	Cg34-Pg1-Ps63	Cg34-Pg1-Ps64
	Cg34-Pg1-Ps65	Cg34-Pg1-Ps66	Cg34-Pg1-Ps67	Cg34-Pg1-Ps68
	Cg34-Pg1-Ps69	Cg34-Pg1-Ps70	Cg34-Pg1-Ps71	Cg34-Pg1-Ps72
	Cg34-Pg1-Ps73	Cg34-Pg1-Ps74	Cg34-Pg1-Ps75	Cg34-Pg1-Ps76
5	Cg34-Pg1-Ps77	Cg34-Pg1-Ps78	Cg34-Pg1-Ps79	Cg34-Pg1-Ps80
	Cg34-Pg1-Ps81	Cg34-Pg1-Ps82	Cg34-Pg1-Ps83	Cg34-Pg1-Ps84
	Cg34-Pg1-Ps85	Cg34-Pg1-Ps86	Cg34-Pg1-Ps87	Cg34-Pg1-Ps88
	Cg34-Pg1-Ps89	Cg34-Pg1-Ps90	Cg34-Pg1-Ps91	Cg34-Pg1-Ps92
	Cg34-Pg1-Ps93	Cg34-Pg1-Ps94	Cg34-Pg1-Ps95	Cg34-Pg1-Ps96
10	Cg34-Pg1-Ps97	Cg34-Pg1-Ps98	Cg34-Pg1-Ps99	Cg34-Pg1-Ps100
	Cg34-Pg1-Ps101	Cg34-Pg1-Ps102	Cg34-Pg1-Ps103	Cg34-Pg1-Ps104
	Cg34-Pg1-Ps105	Cg34-Pg1-Ps106	Cg34-Pg1-Ps107	Cg34-Pg1-Ps108
	Cg34-Pg1-Ps109	Cg34-Pg1-Ps110	Cg34-Pg1-Ps111	Cg34-Pg1-Ps112
	Cg34-Pg1-Ps113	Cg34-Pg1-Ps114	Cg34-Pg1-Ps115	Cg34-Pg1-Ps116
15	Cg34-Pg1-Ps117	Cg34-Pg1-Ps118	Cg34-Pg1-Ps119	Cg34-Pg1-Ps120
	Cg34-Pg1-Ps121	Cg34-Pg1-Ps122	Cg34-Pg1-Ps123	Cg34-Pg1-Ps124
	Cg34-Pg1-Ps125	Cg34-Pg1-Ps126	Cg34-Pg1-Ps127	Cg34-Pg1-Ps128
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	Cg34-Pg1-Ps133	Cg34-Pg1-Ps134	Cg34-Pg1-Ps135	Cg34-Pg1-Ps136
20	Cg34-Pg1-Ps137	Cg34-Pg1-Ps138	Cg34-Pg1-Ps139	Cg34-Pg1-Ps140
	Cg34-Pg1-Ps141	Cg34-Pg1-Ps142	Cg34-Pg1-Ps143	Cg34-Pg1-Ps144
	Cg34-Pg1-Ps145	Cg34-Pg1-Ps146	Cg34-Pg1-Ps147	Cg34-Pg1-Ps148
	Cg34-Pg1-Ps149	Cg34-Pg1-Ps150	Cg34-Pg1-Ps151	Cg34-Pg1-Ps152
	Cg34-Pg1-Ps153	Cg34-Pg1-Ps154	Cg34-Pg1-Ps155	Cg34-Pg1-Ps156
25	Cg34-Pg1-Ps157	Cg34-Pg1-Ps158	Cg34-Pg1-Ps159	Cg34-Pg1-Ps160
	Cg34-Pg1-Ps161	Cg34-Pg1-Ps162	Cg34-Pg1-Ps163	Cg34-Pg1-Ps164
	Cg34-Pg1-Ps165	Cg34-Pg1-Ps166	Cg34-Pg1-Ps167	Cg34-Pg1-Ps168
	Cg34-Pg1-Ps169	Cg34-Pg1-Ps170	Cg34-Pg1-Ps171	Cg34-Pg1-Ps172
	Cg34-Pg1-Ps173	Cg34-Pg1-Ps174	Cg34-Pg1-Ps175	Cg34-Pg1-Ps176
30	Cg34-Pg1-Ps177	Cg34-Pg1-Ps178	Cg34-Pg1-Ps179	Cg34-Pg1-Ps180
	Cg34-Pg1-Ps181	Cg34-Pg1-Ps182	Cg34-Pg1-Ps183	Cg34-Pg1-Ps184
	Cg34-Pg1-Ps185	Cg34-Pg1-Ps186	Cg34-Pg1-Ps187	Cg34-Pg1-Ps188
	Cg34-Pg1-Ps189	Cg34-Pg1-Ps190	Cg34-Pg1-Ps191	Cg34-Pg1-Ps192
	Cg34-Pg1-Ps193	Cg34-Pg1-Ps194	Cg34-Pg1-Ps195	Cg34-Pg1-Ps196
35	Cg34-Pg1-Ps197	Cg34-Pg1-Ps198	Cg34-Pg1-Ps199	Cg34-Pg1-Ps200
	Cg34-Pg1-Ps201	Cg34-Pg1-Ps202	Cg34-Pg1-Ps203	Cg34-Pg1-Ps204
	Cg34-Pg1-Ps205	Cg34-Pg1-Ps206	Cg34-Pg1-Ps207	Cg34-Pg1-Ps208
	Cg34-Pg1-Ps209	Cg34-Pg1-Ps210	Cg34-Pg1-Ps211	Cg34-Pg1-Ps212
	Cg34-Pg1-Ps213	Cg34-Pg1-Ps214	Cg34-Pg1-Ps215	Cg34-Pg1-Ps216
40	Cg34-Pg1-Ps217	Cg34-Pg1-Ps218	Cg34-Pg1-Ps219	Cg34-Pg1-Ps220
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	Cg34-Pg1-Ps225	Cg34-Pg1-Ps226	Cg34-Pg1-Ps227	Cg34-Pg1-Ps228
	Cg34-Pg1-Ps229	Cg34-Pg1-Ps230	Cg34-Pg1-Ps231	Cg34-Pg1-Ps232
	Cg34-Pg1-Ps233	Cg34-Pg1-Ps234	Cg34-Pg1-Ps235	Cg34-Pg1-Ps236
45	Cg34-Pg1-Ps237	Cg34-Pg1-Ps238	Cg34-Pg1-Ps239	Cg34-Pg1-Ps240
	Cg34-Pg1-Ps241	Cg34-Pg1-Ps242	Cg34-Pg1-Ps243	
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	Cg38-Pg1-Ps5	Cg38-Pg1-Ps6	Cg38-Pg1-Ps7	Cg38-Pg1-Ps8
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	Cg38-Pg1-Ps13	Cg38-Pg1-Ps14	Cg38-Pg1-Ps15	Cg38-Pg1-Ps16
	Cg38-Pg1-Ps17	Cg38-Pg1-Ps18	Cg38-Pg1-Ps19	Cg38-Pg1-Ps20

	Cg38–Pg1–Ps21	Cg38–Pg1–Ps22	Cg38–Pg1–Ps23	Cg38–Pg1–Ps24
	Cg38–Pg1–Ps25	Cg38–Pg1–Ps26	Cg38–Pg1–Ps27	Cg38–Pg1–Ps28
	Cg38–Pg1–Ps29	Cg38–Pg1–Ps30	Cg38–Pg1–Ps31	Cg38–Pg1–Ps32
	Cg38–Pg1–Ps33	Cg38–Pg1–Ps34	Cg38–Pg1–Ps35	Cg38–Pg1–Ps36
5	Cg38–Pg1–Ps37	Cg38–Pg1–Ps38	Cg38–Pg1–Ps39	Cg38–Pg1–Ps40
	Cg38–Pg1–Ps41	Cg38–Pg1–Ps42	Cg38–Pg1–Ps43	Cg38–Pg1–Ps44
	Cg38–Pg1–Ps45	Cg38–Pg1–Ps46	Cg38–Pg1–Ps47	Cg38–Pg1–Ps48
	Cg38–Pg1–Ps49	Cg38–Pg1–Ps50	Cg38–Pg1–Ps51	Cg38–Pg1–Ps52
	Cg38–Pg1–Ps53	Cg38–Pg1–Ps54	Cg38–Pg1–Ps55	Cg38–Pg1–Ps56
10	Cg38–Pg1–Ps57	Cg38–Pg1–Ps58	Cg38–Pg1–Ps59	Cg38–Pg1–Ps60
	Cg38–Pg1–Ps61	Cg38–Pg1–Ps62	Cg38–Pg1–Ps63	Cg38–Pg1–Ps64
	Cg38–Pg1–Ps65	Cg38–Pg1–Ps66	Cg38–Pg1–Ps67	Cg38–Pg1–Ps68
	Cg38–Pg1–Ps69	Cg38–Pg1–Ps70	Cg38–Pg1–Ps71	Cg38–Pg1–Ps72
	Cg38–Pg1–Ps73	Cg38–Pg1–Ps74	Cg38–Pg1–Ps75	Cg38–Pg1–Ps76
15	Cg38–Pg1–Ps77	Cg38–Pg1–Ps78	Cg38–Pg1–Ps79	Cg38–Pg1–Ps80
	Cg38–Pg1–Ps81	Cg38–Pg1–Ps82	Cg38–Pg1–Ps83	Cg38–Pg1–Ps84
	Cg38–Pg1–Ps85	Cg38–Pg1–Ps86	Cg38–Pg1–Ps87	Cg38–Pg1–Ps88
	Cg38–Pg1–Ps89	Cg38–Pg1–Ps90	Cg38–Pg1–Ps91	Cg38–Pg1–Ps92
	Cg38–Pg1–Ps93	Cg38–Pg1–Ps94	Cg38–Pg1–Ps95	Cg38–Pg1–Ps96
20	Cg38–Pg1–Ps97	Cg38–Pg1–Ps98	Cg38–Pg1–Ps99	Cg38–Pg1–Ps100
	Cg38–Pg1–Ps101	Cg38–Pg1–Ps102	Cg38–Pg1–Ps103	Cg38–Pg1–Ps104
	Cg38–Pg1–Ps105	Cg38–Pg1–Ps106	Cg38–Pg1–Ps107	Cg38–Pg1–Ps108
	Cg38–Pg1–Ps109	Cg38–Pg1–Ps110	Cg38–Pg1–Ps111	Cg38–Pg1–Ps112
	Cg38–Pg1–Ps113	Cg38–Pg1–Ps114	Cg38–Pg1–Ps115	Cg38–Pg1–Ps116
25	Cg38–Pg1–Ps117	Cg38–Pg1–Ps118	Cg38–Pg1–Ps119	Cg38–Pg1–Ps120
	Cg38–Pg1–Ps121	Cg38–Pg1–Ps122	Cg38–Pg1–Ps123	Cg38–Pg1–Ps124
	Cg38–Pg1–Ps125	Cg38–Pg1–Ps126	Cg38–Pg1–Ps127	Cg38–Pg1–Ps128
	Cg38–Pg1–Ps129	Cg38–Pg1–Ps130	Cg38–Pg1–Ps131	Cg38–Pg1–Ps132
	Cg38–Pg1–Ps133	Cg38–Pg1–Ps134	Cg38–Pg1–Ps135	Cg38–Pg1–Ps136
30	Cg38–Pg1–Ps137	Cg38–Pg1–Ps138	Cg38–Pg1–Ps139	Cg38–Pg1–Ps140
	Cg38–Pg1–Ps141	Cg38–Pg1–Ps142	Cg38–Pg1–Ps143	Cg38–Pg1–Ps144
	Cg38–Pg1–Ps145	Cg38–Pg1–Ps146	Cg38–Pg1–Ps147	Cg38–Pg1–Ps148
	Cg38–Pg1–Ps149	Cg38–Pg1–Ps150	Cg38–Pg1–Ps151	Cg38–Pg1–Ps152
	Cg38–Pg1–Ps153	Cg38–Pg1–Ps154	Cg38–Pg1–Ps155	Cg38–Pg1–Ps156
35	Cg38–Pg1–Ps157	Cg38–Pg1–Ps158	Cg38–Pg1–Ps159	Cg38–Pg1–Ps160
	Cg38–Pg1–Ps161	Cg38–Pg1–Ps162	Cg38–Pg1–Ps163	Cg38–Pg1–Ps164
	Cg38–Pg1–Ps165	Cg38–Pg1–Ps166	Cg38–Pg1–Ps167	Cg38–Pg1–Ps168
	Cg38–Pg1–Ps169	Cg38–Pg1–Ps170	Cg38–Pg1–Ps171	Cg38–Pg1–Ps172
	Cg38–Pg1–Ps173	Cg38–Pg1–Ps174	Cg38–Pg1–Ps175	Cg38–Pg1–Ps176
40	Cg38–Pg1–Ps177	Cg38–Pg1–Ps178	Cg38–Pg1–Ps179	Cg38–Pg1–Ps180
	Cg38–Pg1–Ps181	Cg38–Pg1–Ps182	Cg38–Pg1–Ps183	Cg38–Pg1–Ps184
	Cg38–Pg1–Ps185	Cg38–Pg1–Ps186	Cg38–Pg1–Ps187	Cg38–Pg1–Ps188
	Cg38–Pg1–Ps189	Cg38–Pg1–Ps190	Cg38–Pg1–Ps191	Cg38–Pg1–Ps192
	Cg38–Pg1–Ps193	Cg38–Pg1–Ps194	Cg38–Pg1–Ps195	Cg38–Pg1–Ps196
45	Cg38–Pg1–Ps197	Cg38–Pg1–Ps198	Cg38–Pg1–Ps199	Cg38–Pg1–Ps200
	Cg38–Pg1–Ps201	Cg38–Pg1–Ps202	Cg38–Pg1–Ps203	Cg38–Pg1–Ps204
	Cg38–Pg1–Ps205	Cg38–Pg1–Ps206	Cg38–Pg1–Ps207	Cg38–Pg1–Ps208
	Cg38–Pg1–Ps209	Cg38–Pg1–Ps210	Cg38–Pg1–Ps211	Cg38–Pg1–Ps212
	Cg38–Pg1–Ps213	Cg38–Pg1–Ps214	Cg38–Pg1–Ps215	Cg38–Pg1–Ps216
50	Cg38–Pg1–Ps217	Cg38–Pg1–Ps218	Cg38–Pg1–Ps219	Cg38–Pg1–Ps220
	Cg38–Pg1–Ps221	Cg38–Pg1–Ps222	Cg38–Pg1–Ps223	Cg38–Pg1–Ps224
	Cg38–Pg1–Ps225	Cg38–Pg1–Ps226	Cg38–Pg1–Ps227	Cg38–Pg1–Ps228

	Cg38–Pg1–Ps229	Cg38–Pg1–Ps230	Cg38–Pg1–Ps231	Cg38–Pg1–Ps232
	Cg38–Pg1–Ps233	Cg38–Pg1–Ps234	Cg38–Pg1–Ps235	Cg38–Pg1–Ps236
	Cg38–Pg1–Ps237	Cg38–Pg1–Ps238	Cg38–Pg1–Ps239	Cg38–Pg1–Ps240
	Cg38–Pg1–Ps241	Cg38–Pg1–Ps242	Cg38–Pg1–Ps243	
	Cg39–Pg1–Ps1	Cg39–Pg1–Ps2	Cg39–Pg1–Ps3	Cg39–Pg1–Ps4
	Cg39–Pg1–Ps5	Cg39–Pg1–Ps6	Cg39–Pg1–Ps7	Cg39–Pg1–Ps8
	Cg39–Pg1–Ps9	Cg39–Pg1–Ps10	Cg39–Pg1–Ps11	Cg39–Pg1–Ps12
	Cg39–Pg1–Ps13	Cg39–Pg1–Ps14	Cg39–Pg1–Ps15	Cg39–Pg1–Ps16
	Cg39–Pg1–Ps17	Cg39–Pg1–Ps18	Cg39–Pg1–Ps19	Cg39–Pg1–Ps20
	Cg39–Pg1–Ps21	Cg39–Pg1–Ps22	Cg39–Pg1–Ps23	Cg39–Pg1–Ps24
	Cg39–Pg1–Ps25	Cg39–Pg1–Ps26	Cg39–Pg1–Ps27	Cg39–Pg1–Ps28
	Cg39–Pg1–Ps29	Cg39–Pg1–Ps30	Cg39–Pg1–Ps31	Cg39–Pg1–Ps32
	Cg39–Pg1–Ps33	Cg39–Pg1–Ps34	Cg39–Pg1–Ps35	Cg39–Pg1–Ps36
	Cg39–Pg1–Ps37	Cg39–Pg1–Ps38	Cg39–Pg1–Ps39	Cg39–Pg1–Ps40
	Cg39–Pg1–Ps41	Cg39–Pg1–Ps42	Cg39–Pg1–Ps43	Cg39–Pg1–Ps44
	Cg39–Pg1–Ps45	Cg39–Pg1–Ps46	Cg39–Pg1–Ps47	Cg39–Pg1–Ps48
	Cg39–Pg1–Ps49	Cg39–Pg1–Ps50	Cg39–Pg1–Ps51	Cg39–Pg1–Ps52
	Cg39–Pg1–Ps53	Cg39–Pg1–Ps54	Cg39–Pg1–Ps55	Cg39–Pg1–Ps56
	Cg39–Pg1–Ps57	Cg39–Pg1–Ps58	Cg39–Pg1–Ps59	Cg39–Pg1–Ps60
	Cg39–Pg1–Ps61	Cg39–Pg1–Ps62	Cg39–Pg1–Ps63	Cg39–Pg1–Ps64
	Cg39–Pg1–Ps65	Cg39–Pg1–Ps66	Cg39–Pg1–Ps67	Cg39–Pg1–Ps68
	Cg39–Pg1–Ps69	Cg39–Pg1–Ps70	Cg39–Pg1–Ps71	Cg39–Pg1–Ps72
	Cg39–Pg1–Ps73	Cg39–Pg1–Ps74	Cg39–Pg1–Ps75	Cg39–Pg1–Ps76
	Cg39–Pg1–Ps77	Cg39–Pg1–Ps78	Cg39–Pg1–Ps79	Cg39–Pg1–Ps80
	Cg39–Pg1–Ps81	Cg39–Pg1–Ps82	Cg39–Pg1–Ps83	Cg39–Pg1–Ps84
	Cg39–Pg1–Ps85	Cg39–Pg1–Ps86	Cg39–Pg1–Ps87	Cg39–Pg1–Ps88
	Cg39–Pg1–Ps89	Cg39–Pg1–Ps90	Cg39–Pg1–Ps91	Cg39–Pg1–Ps92
	Cg39–Pg1–Ps93	Cg39–Pg1–Ps94	Cg39–Pg1–Ps95	Cg39–Pg1–Ps96
	Cg39–Pg1–Ps97	Cg39–Pg1–Ps98	Cg39–Pg1–Ps99	Cg39–Pg1–Ps100
	Cg39–Pg1–Ps101	Cg39–Pg1–Ps102	Cg39–Pg1–Ps103	Cg39–Pg1–Ps104
	Cg39–Pg1–Ps105	Cg39–Pg1–Ps106	Cg39–Pg1–Ps107	Cg39–Pg1–Ps108
	Cg39–Pg1–Ps109	Cg39–Pg1–Ps110	Cg39–Pg1–Ps111	Cg39–Pg1–Ps112
	Cg39–Pg1–Ps113	Cg39–Pg1–Ps114	Cg39–Pg1–Ps115	Cg39–Pg1–Ps116
	Cg39–Pg1–Ps117	Cg39–Pg1–Ps118	Cg39–Pg1–Ps119	Cg39–Pg1–Ps120
	Cg39–Pg1–Ps121	Cg39–Pg1–Ps122	Cg39–Pg1–Ps123	Cg39–Pg1–Ps124
	Cg39–Pg1–Ps125	Cg39–Pg1–Ps126	Cg39–Pg1–Ps127	Cg39–Pg1–Ps128
	Cg39–Pg1–Ps129	Cg39–Pg1–Ps130	Cg39–Pg1–Ps131	Cg39–Pg1–Ps132
	Cg39–Pg1–Ps133	Cg39–Pg1–Ps134	Cg39–Pg1–Ps135	Cg39–Pg1–Ps136
	Cg39–Pg1–Ps137	Cg39–Pg1–Ps138	Cg39–Pg1–Ps139	Cg39–Pg1–Ps140
	Cg39–Pg1–Ps141	Cg39–Pg1–Ps142	Cg39–Pg1–Ps143	Cg39–Pg1–Ps144
	Cg39–Pg1–Ps145	Cg39–Pg1–Ps146	Cg39–Pg1–Ps147	Cg39–Pg1–Ps148
	Cg39–Pg1–Ps149	Cg39–Pg1–Ps150	Cg39–Pg1–Ps151	Cg39–Pg1–Ps152
	Cg39–Pg1–Ps153	Cg39–Pg1–Ps154	Cg39–Pg1–Ps155	Cg39–Pg1–Ps156
	Cg39–Pg1–Ps157	Cg39–Pg1–Ps158	Cg39–Pg1–Ps159	Cg39–Pg1–Ps160
	Cg39–Pg1–Ps161	Cg39–Pg1–Ps162	Cg39–Pg1–Ps163	Cg39–Pg1–Ps164
	Cg39–Pg1–Ps165	Cg39–Pg1–Ps166	Cg39–Pg1–Ps167	Cg39–Pg1–Ps168
	Cg39–Pg1–Ps169	Cg39–Pg1–Ps170	Cg39–Pg1–Ps171	Cg39–Pg1–Ps172
	Cg39–Pg1–Ps173	Cg39–Pg1–Ps174	Cg39–Pg1–Ps175	Cg39–Pg1–Ps176
	Cg39–Pg1–Ps177	Cg39–Pg1–Ps178	Cg39–Pg1–Ps179	Cg39–Pg1–Ps180
	Cg39–Pg1–Ps181	Cg39–Pg1–Ps182	Cg39–Pg1–Ps183	Cg39–Pg1–Ps184
	Cg39–Pg1–Ps185	Cg39–Pg1–Ps186	Cg39–Pg1–Ps187	Cg39–Pg1–Ps188

Cg39–Pg1–Ps189	Cg39–Pg1–Ps190	Cg39–Pg1–Ps191	Cg39–Pg1–Ps192
Cg39–Pg1–Ps193	Cg39–Pg1–Ps194	Cg39–Pg1–Ps195	Cg39–Pg1–Ps196
Cg39–Pg1–Ps197	Cg39–Pg1–Ps198	Cg39–Pg1–Ps199	Cg39–Pg1–Ps200
Cg39–Pg1–Ps201	Cg39–Pg1–Ps202	Cg39–Pg1–Ps203	Cg39–Pg1–Ps204
Cg39–Pg1–Ps205	Cg39–Pg1–Ps206	Cg39–Pg1–Ps207	Cg39–Pg1–Ps208
Cg39–Pg1–Ps209	Cg39–Pg1–Ps210	Cg39–Pg1–Ps211	Cg39–Pg1–Ps212
Cg39–Pg1–Ps213	Cg39–Pg1–Ps214	Cg39–Pg1–Ps215	Cg39–Pg1–Ps216
Cg39–Pg1–Ps217	Cg39–Pg1–Ps218	Cg39–Pg1–Ps219	Cg39–Pg1–Ps220
Cg39–Pg1–Ps221	Cg39–Pg1–Ps222	Cg39–Pg1–Ps223	Cg39–Pg1–Ps224
Cg39–Pg1–Ps225	Cg39–Pg1–Ps226	Cg39–Pg1–Ps227	Cg39–Pg1–Ps228
Cg39–Pg1–Ps229	Cg39–Pg1–Ps230	Cg39–Pg1–Ps231	Cg39–Pg1–Ps232
Cg39–Pg1–Ps233	Cg39–Pg1–Ps234	Cg39–Pg1–Ps235	Cg39–Pg1–Ps236
Cg39–Pg1–Ps237	Cg39–Pg1–Ps238	Cg39–Pg1–Ps239	Cg39–Pg1–Ps240
Cg39–Pg1–Ps241	Cg39–Pg1–Ps242	Cg39–Pg1–Ps243	

Cg41–Pg1–Ps1	Cg41–Pg1–Ps2	Cg41–Pg1–Ps3	Cg41–Pg1–Ps4
Cg41–Pg1–Ps5	Cg41–Pg1–Ps6	Cg41–Pg1–Ps7	Cg41–Pg1–Ps8
Cg41–Pg1–Ps9	Cg41–Pg1–Ps10	Cg41–Pg1–Ps11	Cg41–Pg1–Ps12
Cg41–Pg1–Ps13	Cg41–Pg1–Ps14	Cg41–Pg1–Ps15	Cg41–Pg1–Ps16
Cg41–Pg1–Ps17	Cg41–Pg1–Ps18	Cg41–Pg1–Ps19	Cg41–Pg1–Ps20
Cg41–Pg1–Ps21	Cg41–Pg1–Ps22	Cg41–Pg1–Ps23	Cg41–Pg1–Ps24
Cg41–Pg1–Ps25	Cg41–Pg1–Ps26	Cg41–Pg1–Ps27	Cg41–Pg1–Ps28
Cg41–Pg1–Ps29	Cg41–Pg1–Ps30	Cg41–Pg1–Ps31	Cg41–Pg1–Ps32
Cg41–Pg1–Ps33	Cg41–Pg1–Ps34	Cg41–Pg1–Ps35	Cg41–Pg1–Ps36
Cg41–Pg1–Ps37	Cg41–Pg1–Ps38	Cg41–Pg1–Ps39	Cg41–Pg1–Ps40
Cg41–Pg1–Ps41	Cg41–Pg1–Ps42	Cg41–Pg1–Ps43	Cg41–Pg1–Ps44
Cg41–Pg1–Ps45	Cg41–Pg1–Ps46	Cg41–Pg1–Ps47	Cg41–Pg1–Ps48
Cg41–Pg1–Ps49	Cg41–Pg1–Ps50	Cg41–Pg1–Ps51	Cg41–Pg1–Ps52
Cg41–Pg1–Ps53	Cg41–Pg1–Ps54	Cg41–Pg1–Ps55	Cg41–Pg1–Ps56
Cg41–Pg1–Ps57	Cg41–Pg1–Ps58	Cg41–Pg1–Ps59	Cg41–Pg1–Ps60
Cg41–Pg1–Ps61	Cg41–Pg1–Ps62	Cg41–Pg1–Ps63	Cg41–Pg1–Ps64
Cg41–Pg1–Ps65	Cg41–Pg1–Ps66	Cg41–Pg1–Ps67	Cg41–Pg1–Ps68
Cg41–Pg1–Ps69	Cg41–Pg1–Ps70	Cg41–Pg1–Ps71	Cg41–Pg1–Ps72
Cg41–Pg1–Ps73	Cg41–Pg1–Ps74	Cg41–Pg1–Ps75	Cg41–Pg1–Ps76
Cg41–Pg1–Ps77	Cg41–Pg1–Ps78	Cg41–Pg1–Ps79	Cg41–Pg1–Ps80
Cg41–Pg1–Ps81	Cg41–Pg1–Ps82	Cg41–Pg1–Ps83	Cg41–Pg1–Ps84
Cg41–Pg1–Ps85	Cg41–Pg1–Ps86	Cg41–Pg1–Ps87	Cg41–Pg1–Ps88
Cg41–Pg1–Ps89	Cg41–Pg1–Ps90	Cg41–Pg1–Ps91	Cg41–Pg1–Ps92
Cg41–Pg1–Ps93	Cg41–Pg1–Ps94	Cg41–Pg1–Ps95	Cg41–Pg1–Ps96
Cg41–Pg1–Ps97	Cg41–Pg1–Ps98	Cg41–Pg1–Ps99	Cg41–Pg1–Ps100
Cg41–Pg1–Ps101	Cg41–Pg1–Ps102	Cg41–Pg1–Ps103	Cg41–Pg1–Ps104
Cg41–Pg1–Ps105	Cg41–Pg1–Ps106	Cg41–Pg1–Ps107	Cg41–Pg1–Ps108
Cg41–Pg1–Ps109	Cg41–Pg1–Ps110	Cg41–Pg1–Ps111	Cg41–Pg1–Ps112
Cg41–Pg1–Ps113	Cg41–Pg1–Ps114	Cg41–Pg1–Ps115	Cg41–Pg1–Ps116
Cg41–Pg1–Ps117	Cg41–Pg1–Ps118	Cg41–Pg1–Ps119	Cg41–Pg1–Ps120
Cg41–Pg1–Ps121	Cg41–Pg1–Ps122	Cg41–Pg1–Ps123	Cg41–Pg1–Ps124
Cg41–Pg1–Ps125	Cg41–Pg1–Ps126	Cg41–Pg1–Ps127	Cg41–Pg1–Ps128
Cg41–Pg1–Ps129	Cg41–Pg1–Ps130	Cg41–Pg1–Ps131	Cg41–Pg1–Ps132
Cg41–Pg1–Ps133	Cg41–Pg1–Ps134	Cg41–Pg1–Ps135	Cg41–Pg1–Ps136
Cg41–Pg1–Ps137	Cg41–Pg1–Ps138	Cg41–Pg1–Ps139	Cg41–Pg1–Ps140
Cg41–Pg1–Ps141	Cg41–Pg1–Ps142	Cg41–Pg1–Ps143	Cg41–Pg1–Ps144
Cg41–Pg1–Ps145	Cg41–Pg1–Ps146	Cg41–Pg1–Ps147	Cg41–Pg1–Ps148

	Cg41–Pg1–Ps149	Cg41–Pg1–Ps150	Cg41–Pg1–Ps151	Cg41–Pg1–Ps152
	Cg41–Pg1–Ps153	Cg41–Pg1–Ps154	Cg41–Pg1–Ps155	Cg41–Pg1–Ps156
	Cg41–Pg1–Ps157	Cg41–Pg1–Ps158	Cg41–Pg1–Ps159	Cg41–Pg1–Ps160
	Cg41–Pg1–Ps161	Cg41–Pg1–Ps162	Cg41–Pg1–Ps163	Cg41–Pg1–Ps164
5	Cg41–Pg1–Ps165	Cg41–Pg1–Ps166	Cg41–Pg1–Ps167	Cg41–Pg1–Ps168
	Cg41–Pg1–Ps169	Cg41–Pg1–Ps170	Cg41–Pg1–Ps171	Cg41–Pg1–Ps172
	Cg41–Pg1–Ps173	Cg41–Pg1–Ps174	Cg41–Pg1–Ps175	Cg41–Pg1–Ps176
	Cg41–Pg1–Ps177	Cg41–Pg1–Ps178	Cg41–Pg1–Ps179	Cg41–Pg1–Ps180
	Cg41–Pg1–Ps181	Cg41–Pg1–Ps182	Cg41–Pg1–Ps183	Cg41–Pg1–Ps184
10	Cg41–Pg1–Ps185	Cg41–Pg1–Ps186	Cg41–Pg1–Ps187	Cg41–Pg1–Ps188
	Cg41–Pg1–Ps189	Cg41–Pg1–Ps190	Cg41–Pg1–Ps191	Cg41–Pg1–Ps192
	Cg41–Pg1–Ps193	Cg41–Pg1–Ps194	Cg41–Pg1–Ps195	Cg41–Pg1–Ps196
	Cg41–Pg1–Ps197	Cg41–Pg1–Ps198	Cg41–Pg1–Ps199	Cg41–Pg1–Ps200
	Cg41–Pg1–Ps201	Cg41–Pg1–Ps202	Cg41–Pg1–Ps203	Cg41–Pg1–Ps204
15	Cg41–Pg1–Ps205	Cg41–Pg1–Ps206	Cg41–Pg1–Ps207	Cg41–Pg1–Ps208
	Cg41–Pg1–Ps209	Cg41–Pg1–Ps210	Cg41–Pg1–Ps211	Cg41–Pg1–Ps212
	Cg41–Pg1–Ps213	Cg41–Pg1–Ps214	Cg41–Pg1–Ps215	Cg41–Pg1–Ps216
	Cg41–Pg1–Ps217	Cg41–Pg1–Ps218	Cg41–Pg1–Ps219	Cg41–Pg1–Ps220
	Cg41–Pg1–Ps221	Cg41–Pg1–Ps222	Cg41–Pg1–Ps223	Cg41–Pg1–Ps224
20	Cg41–Pg1–Ps225	Cg41–Pg1–Ps226	Cg41–Pg1–Ps227	Cg41–Pg1–Ps228
	Cg41–Pg1–Ps229	Cg41–Pg1–Ps230	Cg41–Pg1–Ps231	Cg41–Pg1–Ps232
	Cg41–Pg1–Ps233	Cg41–Pg1–Ps234	Cg41–Pg1–Ps235	Cg41–Pg1–Ps236
	Cg41–Pg1–Ps237	Cg41–Pg1–Ps238	Cg41–Pg1–Ps239	Cg41–Pg1–Ps240
	Cg41–Pg1–Ps241	Cg41–Pg1–Ps242	Cg41–Pg1–Ps243	
25				
	Cg42–Pg1–Ps1	Cg42–Pg1–Ps2	Cg42–Pg1–Ps3	Cg42–Pg1–Ps4
	Cg42–Pg1–Ps5	Cg42–Pg1–Ps6	Cg42–Pg1–Ps7	Cg42–Pg1–Ps8
	Cg42–Pg1–Ps9	Cg42–Pg1–Ps10	Cg42–Pg1–Ps11	Cg42–Pg1–Ps12
	Cg42–Pg1–Ps13	Cg42–Pg1–Ps14	Cg42–Pg1–Ps15	Cg42–Pg1–Ps16
30	Cg42–Pg1–Ps17	Cg42–Pg1–Ps18	Cg42–Pg1–Ps19	Cg42–Pg1–Ps20
	Cg42–Pg1–Ps21	Cg42–Pg1–Ps22	Cg42–Pg1–Ps23	Cg42–Pg1–Ps24
	Cg42–Pg1–Ps25	Cg42–Pg1–Ps26	Cg42–Pg1–Ps27	Cg42–Pg1–Ps28
	Cg42–Pg1–Ps29	Cg42–Pg1–Ps30	Cg42–Pg1–Ps31	Cg42–Pg1–Ps32
	Cg42–Pg1–Ps33	Cg42–Pg1–Ps34	Cg42–Pg1–Ps35	Cg42–Pg1–Ps36
35	Cg42–Pg1–Ps37	Cg42–Pg1–Ps38	Cg42–Pg1–Ps39	Cg42–Pg1–Ps40
	Cg42–Pg1–Ps41	Cg42–Pg1–Ps42	Cg42–Pg1–Ps43	Cg42–Pg1–Ps44
	Cg42–Pg1–Ps45	Cg42–Pg1–Ps46	Cg42–Pg1–Ps47	Cg42–Pg1–Ps48
	Cg42–Pg1–Ps49	Cg42–Pg1–Ps50	Cg42–Pg1–Ps51	Cg42–Pg1–Ps52
	Cg42–Pg1–Ps53	Cg42–Pg1–Ps54	Cg42–Pg1–Ps55	Cg42–Pg1–Ps56
40	Cg42–Pg1–Ps57	Cg42–Pg1–Ps58	Cg42–Pg1–Ps59	Cg42–Pg1–Ps60
	Cg42–Pg1–Ps61	Cg42–Pg1–Ps62	Cg42–Pg1–Ps63	Cg42–Pg1–Ps64
	Cg42–Pg1–Ps65	Cg42–Pg1–Ps66	Cg42–Pg1–Ps67	Cg42–Pg1–Ps68
	Cg42–Pg1–Ps69	Cg42–Pg1–Ps70	Cg42–Pg1–Ps71	Cg42–Pg1–Ps72
	Cg42–Pg1–Ps73	Cg42–Pg1–Ps74	Cg42–Pg1–Ps75	Cg42–Pg1–Ps76
45	Cg42–Pg1–Ps77	Cg42–Pg1–Ps78	Cg42–Pg1–Ps79	Cg42–Pg1–Ps80
	Cg42–Pg1–Ps81	Cg42–Pg1–Ps82	Cg42–Pg1–Ps83	Cg42–Pg1–Ps84
	Cg42–Pg1–Ps85	Cg42–Pg1–Ps86	Cg42–Pg1–Ps87	Cg42–Pg1–Ps88
	Cg42–Pg1–Ps89	Cg42–Pg1–Ps90	Cg42–Pg1–Ps91	Cg42–Pg1–Ps92
	Cg42–Pg1–Ps93	Cg42–Pg1–Ps94	Cg42–Pg1–Ps95	Cg42–Pg1–Ps96
50	Cg42–Pg1–Ps97	Cg42–Pg1–Ps98	Cg42–Pg1–Ps99	Cg42–Pg1–Ps100
	Cg42–Pg1–Ps101	Cg42–Pg1–Ps102	Cg42–Pg1–Ps103	Cg42–Pg1–Ps104
	Cg42–Pg1–Ps105	Cg42–Pg1–Ps106	Cg42–Pg1–Ps107	Cg42–Pg1–Ps108

Cg42–Pg1–Ps109	Cg42–Pg1–Ps110	Cg42–Pg1–Ps111	Cg42–Pg1–Ps112
Cg42–Pg1–Ps113	Cg42–Pg1–Ps114	Cg42–Pg1–Ps115	Cg42–Pg1–Ps116
Cg42–Pg1–Ps117	Cg42–Pg1–Ps118	Cg42–Pg1–Ps119	Cg42–Pg1–Ps120
Cg42–Pg1–Ps121	Cg42–Pg1–Ps122	Cg42–Pg1–Ps123	Cg42–Pg1–Ps124
Cg42–Pg1–Ps125	Cg42–Pg1–Ps126	Cg42–Pg1–Ps127	Cg42–Pg1–Ps128
Cg42–Pg1–Ps129	Cg42–Pg1–Ps130	Cg42–Pg1–Ps131	Cg42–Pg1–Ps132
Cg42–Pg1–Ps133	Cg42–Pg1–Ps134	Cg42–Pg1–Ps135	Cg42–Pg1–Ps136
Cg42–Pg1–Ps137	Cg42–Pg1–Ps138	Cg42–Pg1–Ps139	Cg42–Pg1–Ps140
Cg42–Pg1–Ps141	Cg42–Pg1–Ps142	Cg42–Pg1–Ps143	Cg42–Pg1–Ps144
Cg42–Pg1–Ps145	Cg42–Pg1–Ps146	Cg42–Pg1–Ps147	Cg42–Pg1–Ps148
Cg42–Pg1–Ps149	Cg42–Pg1–Ps150	Cg42–Pg1–Ps151	Cg42–Pg1–Ps152
Cg42–Pg1–Ps153	Cg42–Pg1–Ps154	Cg42–Pg1–Ps155	Cg42–Pg1–Ps156
Cg42–Pg1–Ps157	Cg42–Pg1–Ps158	Cg42–Pg1–Ps159	Cg42–Pg1–Ps160
Cg42–Pg1–Ps161	Cg42–Pg1–Ps162	Cg42–Pg1–Ps163	Cg42–Pg1–Ps164
Cg42–Pg1–Ps165	Cg42–Pg1–Ps166	Cg42–Pg1–Ps167	Cg42–Pg1–Ps168
Cg42–Pg1–Ps169	Cg42–Pg1–Ps170	Cg42–Pg1–Ps171	Cg42–Pg1–Ps172
Cg42–Pg1–Ps173	Cg42–Pg1–Ps174	Cg42–Pg1–Ps175	Cg42–Pg1–Ps176
Cg42–Pg1–Ps177	Cg42–Pg1–Ps178	Cg42–Pg1–Ps179	Cg42–Pg1–Ps180
Cg42–Pg1–Ps181	Cg42–Pg1–Ps182	Cg42–Pg1–Ps183	Cg42–Pg1–Ps184
Cg42–Pg1–Ps185	Cg42–Pg1–Ps186	Cg42–Pg1–Ps187	Cg42–Pg1–Ps188
Cg42–Pg1–Ps189	Cg42–Pg1–Ps190	Cg42–Pg1–Ps191	Cg42–Pg1–Ps192
Cg42–Pg1–Ps193	Cg42–Pg1–Ps194	Cg42–Pg1–Ps195	Cg42–Pg1–Ps196
Cg42–Pg1–Ps197	Cg42–Pg1–Ps198	Cg42–Pg1–Ps199	Cg42–Pg1–Ps200
Cg42–Pg1–Ps201	Cg42–Pg1–Ps202	Cg42–Pg1–Ps203	Cg42–Pg1–Ps204
Cg42–Pg1–Ps205	Cg42–Pg1–Ps206	Cg42–Pg1–Ps207	Cg42–Pg1–Ps208
Cg42–Pg1–Ps209	Cg42–Pg1–Ps210	Cg42–Pg1–Ps211	Cg42–Pg1–Ps212
Cg42–Pg1–Ps213	Cg42–Pg1–Ps214	Cg42–Pg1–Ps215	Cg42–Pg1–Ps216
Cg42–Pg1–Ps217	Cg42–Pg1–Ps218	Cg42–Pg1–Ps219	Cg42–Pg1–Ps220
Cg42–Pg1–Ps221	Cg42–Pg1–Ps222	Cg42–Pg1–Ps223	Cg42–Pg1–Ps224
Cg42–Pg1–Ps225	Cg42–Pg1–Ps226	Cg42–Pg1–Ps227	Cg42–Pg1–Ps228
Cg42–Pg1–Ps229	Cg42–Pg1–Ps230	Cg42–Pg1–Ps231	Cg42–Pg1–Ps232
Cg42–Pg1–Ps233	Cg42–Pg1–Ps234	Cg42–Pg1–Ps235	Cg42–Pg1–Ps236
Cg42–Pg1–Ps237	Cg42–Pg1–Ps238	Cg42–Pg1–Ps239	Cg42–Pg1–Ps240
Cg42–Pg1–Ps241	Cg42–Pg1–Ps242	Cg42–Pg1–Ps243	

Cg44–Pg1–Ps1	Cg44–Pg1–Ps2	Cg44–Pg1–Ps3	Cg44–Pg1–Ps4
Cg44–Pg1–Ps5	Cg44–Pg1–Ps6	Cg44–Pg1–Ps7	Cg44–Pg1–Ps8
Cg44–Pg1–Ps9	Cg44–Pg1–Ps10	Cg44–Pg1–Ps11	Cg44–Pg1–Ps12
Cg44–Pg1–Ps13	Cg44–Pg1–Ps14	Cg44–Pg1–Ps15	Cg44–Pg1–Ps16
Cg44–Pg1–Ps17	Cg44–Pg1–Ps18	Cg44–Pg1–Ps19	Cg44–Pg1–Ps20
Cg44–Pg1–Ps21	Cg44–Pg1–Ps22	Cg44–Pg1–Ps23	Cg44–Pg1–Ps24
Cg44–Pg1–Ps25	Cg44–Pg1–Ps26	Cg44–Pg1–Ps27	Cg44–Pg1–Ps28
Cg44–Pg1–Ps29	Cg44–Pg1–Ps30	Cg44–Pg1–Ps31	Cg44–Pg1–Ps32
Cg44–Pg1–Ps33	Cg44–Pg1–Ps34	Cg44–Pg1–Ps35	Cg44–Pg1–Ps36
Cg44–Pg1–Ps37	Cg44–Pg1–Ps38	Cg44–Pg1–Ps39	Cg44–Pg1–Ps40
Cg44–Pg1–Ps41	Cg44–Pg1–Ps42	Cg44–Pg1–Ps43	Cg44–Pg1–Ps44
Cg44–Pg1–Ps45	Cg44–Pg1–Ps46	Cg44–Pg1–Ps47	Cg44–Pg1–Ps48
Cg44–Pg1–Ps49	Cg44–Pg1–Ps50	Cg44–Pg1–Ps51	Cg44–Pg1–Ps52
Cg44–Pg1–Ps53	Cg44–Pg1–Ps54	Cg44–Pg1–Ps55	Cg44–Pg1–Ps56
Cg44–Pg1–Ps57	Cg44–Pg1–Ps58	Cg44–Pg1–Ps59	Cg44–Pg1–Ps60
Cg44–Pg1–Ps61	Cg44–Pg1–Ps62	Cg44–Pg1–Ps63	Cg44–Pg1–Ps64
Cg44–Pg1–Ps65	Cg44–Pg1–Ps66	Cg44–Pg1–Ps67	Cg44–Pg1–Ps68

Cg44–Pg1–Ps69	Cg44–Pg1–Ps70	Cg44–Pg1–Ps71	Cg44–Pg1–Ps72
Cg44–Pg1–Ps73	Cg44–Pg1–Ps74	Cg44–Pg1–Ps75	Cg44–Pg1–Ps76
Cg44–Pg1–Ps77	Cg44–Pg1–Ps78	Cg44–Pg1–Ps79	Cg44–Pg1–Ps80
Cg44–Pg1–Ps81	Cg44–Pg1–Ps82	Cg44–Pg1–Ps83	Cg44–Pg1–Ps84
Cg44–Pg1–Ps85	Cg44–Pg1–Ps86	Cg44–Pg1–Ps87	Cg44–Pg1–Ps88
Cg44–Pg1–Ps89	Cg44–Pg1–Ps90	Cg44–Pg1–Ps91	Cg44–Pg1–Ps92
Cg44–Pg1–Ps93	Cg44–Pg1–Ps94	Cg44–Pg1–Ps95	Cg44–Pg1–Ps96
Cg44–Pg1–Ps97	Cg44–Pg1–Ps98	Cg44–Pg1–Ps99	Cg44–Pg1–Ps100
Cg44–Pg1–Ps101	Cg44–Pg1–Ps102	Cg44–Pg1–Ps103	Cg44–Pg1–Ps104
Cg44–Pg1–Ps105	Cg44–Pg1–Ps106	Cg44–Pg1–Ps107	Cg44–Pg1–Ps108
Cg44–Pg1–Ps109	Cg44–Pg1–Ps110	Cg44–Pg1–Ps111	Cg44–Pg1–Ps112
Cg44–Pg1–Ps113	Cg44–Pg1–Ps114	Cg44–Pg1–Ps115	Cg44–Pg1–Ps116
Cg44–Pg1–Ps117	Cg44–Pg1–Ps118	Cg44–Pg1–Ps119	Cg44–Pg1–Ps120
Cg44–Pg1–Ps121	Cg44–Pg1–Ps122	Cg44–Pg1–Ps123	Cg44–Pg1–Ps124
Cg44–Pg1–Ps125	Cg44–Pg1–Ps126	Cg44–Pg1–Ps127	Cg44–Pg1–Ps128
Cg44–Pg1–Ps129	Cg44–Pg1–Ps130	Cg44–Pg1–Ps131	Cg44–Pg1–Ps132
Cg44–Pg1–Ps133	Cg44–Pg1–Ps134	Cg44–Pg1–Ps135	Cg44–Pg1–Ps136
Cg44–Pg1–Ps137	Cg44–Pg1–Ps138	Cg44–Pg1–Ps139	Cg44–Pg1–Ps140
Cg44–Pg1–Ps141	Cg44–Pg1–Ps142	Cg44–Pg1–Ps143	Cg44–Pg1–Ps144
Cg44–Pg1–Ps145	Cg44–Pg1–Ps146	Cg44–Pg1–Ps147	Cg44–Pg1–Ps148
Cg44–Pg1–Ps149	Cg44–Pg1–Ps150	Cg44–Pg1–Ps151	Cg44–Pg1–Ps152
Cg44–Pg1–Ps153	Cg44–Pg1–Ps154	Cg44–Pg1–Ps155	Cg44–Pg1–Ps156
Cg44–Pg1–Ps157	Cg44–Pg1–Ps158	Cg44–Pg1–Ps159	Cg44–Pg1–Ps160
Cg44–Pg1–Ps161	Cg44–Pg1–Ps162	Cg44–Pg1–Ps163	Cg44–Pg1–Ps164
Cg44–Pg1–Ps165	Cg44–Pg1–Ps166	Cg44–Pg1–Ps167	Cg44–Pg1–Ps168
Cg44–Pg1–Ps169	Cg44–Pg1–Ps170	Cg44–Pg1–Ps171	Cg44–Pg1–Ps172
Cg44–Pg1–Ps173	Cg44–Pg1–Ps174	Cg44–Pg1–Ps175	Cg44–Pg1–Ps176
Cg44–Pg1–Ps177	Cg44–Pg1–Ps178	Cg44–Pg1–Ps179	Cg44–Pg1–Ps180
Cg44–Pg1–Ps181	Cg44–Pg1–Ps182	Cg44–Pg1–Ps183	Cg44–Pg1–Ps184
Cg44–Pg1–Ps185	Cg44–Pg1–Ps186	Cg44–Pg1–Ps187	Cg44–Pg1–Ps188
Cg44–Pg1–Ps189	Cg44–Pg1–Ps190	Cg44–Pg1–Ps191	Cg44–Pg1–Ps192
Cg44–Pg1–Ps193	Cg44–Pg1–Ps194	Cg44–Pg1–Ps195	Cg44–Pg1–Ps196
Cg44–Pg1–Ps197	Cg44–Pg1–Ps198	Cg44–Pg1–Ps199	Cg44–Pg1–Ps200
Cg44–Pg1–Ps201	Cg44–Pg1–Ps202	Cg44–Pg1–Ps203	Cg44–Pg1–Ps204
Cg44–Pg1–Ps205	Cg44–Pg1–Ps206	Cg44–Pg1–Ps207	Cg44–Pg1–Ps208
Cg44–Pg1–Ps209	Cg44–Pg1–Ps210	Cg44–Pg1–Ps211	Cg44–Pg1–Ps212
Cg44–Pg1–Ps213	Cg44–Pg1–Ps214	Cg44–Pg1–Ps215	Cg44–Pg1–Ps216
Cg44–Pg1–Ps217	Cg44–Pg1–Ps218	Cg44–Pg1–Ps219	Cg44–Pg1–Ps220
Cg44–Pg1–Ps221	Cg44–Pg1–Ps222	Cg44–Pg1–Ps223	Cg44–Pg1–Ps224
Cg44–Pg1–Ps225	Cg44–Pg1–Ps226	Cg44–Pg1–Ps227	Cg44–Pg1–Ps228
Cg44–Pg1–Ps229	Cg44–Pg1–Ps230	Cg44–Pg1–Ps231	Cg44–Pg1–Ps232
Cg44–Pg1–Ps233	Cg44–Pg1–Ps234	Cg44–Pg1–Ps235	Cg44–Pg1–Ps236
Cg44–Pg1–Ps237	Cg44–Pg1–Ps238	Cg44–Pg1–Ps239	Cg44–Pg1–Ps240
Cg44–Pg1–Ps241	Cg44–Pg1–Ps242	Cg44–Pg1–Ps243	

Cg45–Pg1–Ps1	Cg45–Pg1–Ps2	Cg45–Pg1–Ps3	Cg45–Pg1–Ps4
Cg45–Pg1–Ps5	Cg45–Pg1–Ps6	Cg45–Pg1–Ps7	Cg45–Pg1–Ps8
Cg45–Pg1–Ps9	Cg45–Pg1–Ps10	Cg45–Pg1–Ps11	Cg45–Pg1–Ps12
Cg45–Pg1–Ps13	Cg45–Pg1–Ps14	Cg45–Pg1–Ps15	Cg45–Pg1–Ps16
Cg45–Pg1–Ps17	Cg45–Pg1–Ps18	Cg45–Pg1–Ps19	Cg45–Pg1–Ps20
Cg45–Pg1–Ps21	Cg45–Pg1–Ps22	Cg45–Pg1–Ps23	Cg45–Pg1–Ps24
Cg45–Pg1–Ps25	Cg45–Pg1–Ps26	Cg45–Pg1–Ps27	Cg45–Pg1–Ps28

	Cg45–Pg1–Ps29	Cg45–Pg1–Ps30	Cg45–Pg1–Ps31	Cg45–Pg1–Ps32
	Cg45–Pg1–Ps33	Cg45–Pg1–Ps34	Cg45–Pg1–Ps35	Cg45–Pg1–Ps36
	Cg45–Pg1–Ps37	Cg45–Pg1–Ps38	Cg45–Pg1–Ps39	Cg45–Pg1–Ps40
	Cg45–Pg1–Ps41	Cg45–Pg1–Ps42	Cg45–Pg1–Ps43	Cg45–Pg1–Ps44
5	Cg45–Pg1–Ps45	Cg45–Pg1–Ps46	Cg45–Pg1–Ps47	Cg45–Pg1–Ps48
	Cg45–Pg1–Ps49	Cg45–Pg1–Ps50	Cg45–Pg1–Ps51	Cg45–Pg1–Ps52
	Cg45–Pg1–Ps53	Cg45–Pg1–Ps54	Cg45–Pg1–Ps55	Cg45–Pg1–Ps56
	Cg45–Pg1–Ps57	Cg45–Pg1–Ps58	Cg45–Pg1–Ps59	Cg45–Pg1–Ps60
	Cg45–Pg1–Ps61	Cg45–Pg1–Ps62	Cg45–Pg1–Ps63	Cg45–Pg1–Ps64
10	Cg45–Pg1–Ps65	Cg45–Pg1–Ps66	Cg45–Pg1–Ps67	Cg45–Pg1–Ps68
	Cg45–Pg1–Ps69	Cg45–Pg1–Ps70	Cg45–Pg1–Ps71	Cg45–Pg1–Ps72
	Cg45–Pg1–Ps73	Cg45–Pg1–Ps74	Cg45–Pg1–Ps75	Cg45–Pg1–Ps76
	Cg45–Pg1–Ps77	Cg45–Pg1–Ps78	Cg45–Pg1–Ps79	Cg45–Pg1–Ps80
	Cg45–Pg1–Ps81	Cg45–Pg1–Ps82	Cg45–Pg1–Ps83	Cg45–Pg1–Ps84
15	Cg45–Pg1–Ps85	Cg45–Pg1–Ps86	Cg45–Pg1–Ps87	Cg45–Pg1–Ps88
	Cg45–Pg1–Ps89	Cg45–Pg1–Ps90	Cg45–Pg1–Ps91	Cg45–Pg1–Ps92
	Cg45–Pg1–Ps93	Cg45–Pg1–Ps94	Cg45–Pg1–Ps95	Cg45–Pg1–Ps96
	Cg45–Pg1–Ps97	Cg45–Pg1–Ps98	Cg45–Pg1–Ps99	Cg45–Pg1–Ps100
	Cg45–Pg1–Ps101	Cg45–Pg1–Ps102	Cg45–Pg1–Ps103	Cg45–Pg1–Ps104
20	Cg45–Pg1–Ps105	Cg45–Pg1–Ps106	Cg45–Pg1–Ps107	Cg45–Pg1–Ps108
	Cg45–Pg1–Ps109	Cg45–Pg1–Ps110	Cg45–Pg1–Ps111	Cg45–Pg1–Ps112
	Cg45–Pg1–Ps113	Cg45–Pg1–Ps114	Cg45–Pg1–Ps115	Cg45–Pg1–Ps116
	Cg45–Pg1–Ps117	Cg45–Pg1–Ps118	Cg45–Pg1–Ps119	Cg45–Pg1–Ps120
	Cg45–Pg1–Ps121	Cg45–Pg1–Ps122	Cg45–Pg1–Ps123	Cg45–Pg1–Ps124
25	Cg45–Pg1–Ps125	Cg45–Pg1–Ps126	Cg45–Pg1–Ps127	Cg45–Pg1–Ps128
	Cg45–Pg1–Ps129	Cg45–Pg1–Ps130	Cg45–Pg1–Ps131	Cg45–Pg1–Ps132
	Cg45–Pg1–Ps133	Cg45–Pg1–Ps134	Cg45–Pg1–Ps135	Cg45–Pg1–Ps136
	Cg45–Pg1–Ps137	Cg45–Pg1–Ps138	Cg45–Pg1–Ps139	Cg45–Pg1–Ps140
	Cg45–Pg1–Ps141	Cg45–Pg1–Ps142	Cg45–Pg1–Ps143	Cg45–Pg1–Ps144
30	Cg45–Pg1–Ps145	Cg45–Pg1–Ps146	Cg45–Pg1–Ps147	Cg45–Pg1–Ps148
	Cg45–Pg1–Ps149	Cg45–Pg1–Ps150	Cg45–Pg1–Ps151	Cg45–Pg1–Ps152
	Cg45–Pg1–Ps153	Cg45–Pg1–Ps154	Cg45–Pg1–Ps155	Cg45–Pg1–Ps156
	Cg45–Pg1–Ps157	Cg45–Pg1–Ps158	Cg45–Pg1–Ps159	Cg45–Pg1–Ps160
	Cg45–Pg1–Ps161	Cg45–Pg1–Ps162	Cg45–Pg1–Ps163	Cg45–Pg1–Ps164
35	Cg45–Pg1–Ps165	Cg45–Pg1–Ps166	Cg45–Pg1–Ps167	Cg45–Pg1–Ps168
	Cg45–Pg1–Ps169	Cg45–Pg1–Ps170	Cg45–Pg1–Ps171	Cg45–Pg1–Ps172
	Cg45–Pg1–Ps173	Cg45–Pg1–Ps174	Cg45–Pg1–Ps175	Cg45–Pg1–Ps176
	Cg45–Pg1–Ps177	Cg45–Pg1–Ps178	Cg45–Pg1–Ps179	Cg45–Pg1–Ps180
	Cg45–Pg1–Ps181	Cg45–Pg1–Ps182	Cg45–Pg1–Ps183	Cg45–Pg1–Ps184
40	Cg45–Pg1–Ps185	Cg45–Pg1–Ps186	Cg45–Pg1–Ps187	Cg45–Pg1–Ps188
	Cg45–Pg1–Ps189	Cg45–Pg1–Ps190	Cg45–Pg1–Ps191	Cg45–Pg1–Ps192
	Cg45–Pg1–Ps193	Cg45–Pg1–Ps194	Cg45–Pg1–Ps195	Cg45–Pg1–Ps196
	Cg45–Pg1–Ps197	Cg45–Pg1–Ps198	Cg45–Pg1–Ps199	Cg45–Pg1–Ps200
	Cg45–Pg1–Ps201	Cg45–Pg1–Ps202	Cg45–Pg1–Ps203	Cg45–Pg1–Ps204
45	Cg45–Pg1–Ps205	Cg45–Pg1–Ps206	Cg45–Pg1–Ps207	Cg45–Pg1–Ps208
	Cg45–Pg1–Ps209	Cg45–Pg1–Ps210	Cg45–Pg1–Ps211	Cg45–Pg1–Ps212
	Cg45–Pg1–Ps213	Cg45–Pg1–Ps214	Cg45–Pg1–Ps215	Cg45–Pg1–Ps216
	Cg45–Pg1–Ps217	Cg45–Pg1–Ps218	Cg45–Pg1–Ps219	Cg45–Pg1–Ps220
	Cg45–Pg1–Ps221	Cg45–Pg1–Ps222	Cg45–Pg1–Ps223	Cg45–Pg1–Ps224
50	Cg45–Pg1–Ps225	Cg45–Pg1–Ps226	Cg45–Pg1–Ps227	Cg45–Pg1–Ps228
	Cg45–Pg1–Ps229	Cg45–Pg1–Ps230	Cg45–Pg1–Ps231	Cg45–Pg1–Ps232
	Cg45–Pg1–Ps233	Cg45–Pg1–Ps234	Cg45–Pg1–Ps235	Cg45–Pg1–Ps236

	Cg45–Pg1–Ps237	Cg45–Pg1–Ps238	Cg45–Pg1–Ps239	Cg45–Pg1–Ps240
	Cg45–Pg1–Ps241	Cg45–Pg1–Ps242	Cg45–Pg1–Ps243	
	Cg46–Pg1–Ps1	Cg46–Pg1–Ps2	Cg46–Pg1–Ps3	Cg46–Pg1–Ps4
5	Cg46–Pg1–Ps5	Cg46–Pg1–Ps6	Cg46–Pg1–Ps7	Cg46–Pg1–Ps8
	Cg46–Pg1–Ps9	Cg46–Pg1–Ps10	Cg46–Pg1–Ps11	Cg46–Pg1–Ps12
	Cg46–Pg1–Ps13	Cg46–Pg1–Ps14	Cg46–Pg1–Ps15	Cg46–Pg1–Ps16
	Cg46–Pg1–Ps17	Cg46–Pg1–Ps18	Cg46–Pg1–Ps19	Cg46–Pg1–Ps20
	Cg46–Pg1–Ps21	Cg46–Pg1–Ps22	Cg46–Pg1–Ps23	Cg46–Pg1–Ps24
10	Cg46–Pg1–Ps25	Cg46–Pg1–Ps26	Cg46–Pg1–Ps27	Cg46–Pg1–Ps28
	Cg46–Pg1–Ps29	Cg46–Pg1–Ps30	Cg46–Pg1–Ps31	Cg46–Pg1–Ps32
	Cg46–Pg1–Ps33	Cg46–Pg1–Ps34	Cg46–Pg1–Ps35	Cg46–Pg1–Ps36
	Cg46–Pg1–Ps37	Cg46–Pg1–Ps38	Cg46–Pg1–Ps39	Cg46–Pg1–Ps40
	Cg46–Pg1–Ps41	Cg46–Pg1–Ps42	Cg46–Pg1–Ps43	Cg46–Pg1–Ps44
15	Cg46–Pg1–Ps45	Cg46–Pg1–Ps46	Cg46–Pg1–Ps47	Cg46–Pg1–Ps48
	Cg46–Pg1–Ps49	Cg46–Pg1–Ps50	Cg46–Pg1–Ps51	Cg46–Pg1–Ps52
	Cg46–Pg1–Ps53	Cg46–Pg1–Ps54	Cg46–Pg1–Ps55	Cg46–Pg1–Ps56
	Cg46–Pg1–Ps57	Cg46–Pg1–Ps58	Cg46–Pg1–Ps59	Cg46–Pg1–Ps60
	Cg46–Pg1–Ps61	Cg46–Pg1–Ps62	Cg46–Pg1–Ps63	Cg46–Pg1–Ps64
20	Cg46–Pg1–Ps65	Cg46–Pg1–Ps66	Cg46–Pg1–Ps67	Cg46–Pg1–Ps68
	Cg46–Pg1–Ps69	Cg46–Pg1–Ps70	Cg46–Pg1–Ps71	Cg46–Pg1–Ps72
	Cg46–Pg1–Ps73	Cg46–Pg1–Ps74	Cg46–Pg1–Ps75	Cg46–Pg1–Ps76
	Cg46–Pg1–Ps77	Cg46–Pg1–Ps78	Cg46–Pg1–Ps79	Cg46–Pg1–Ps80
	Cg46–Pg1–Ps81	Cg46–Pg1–Ps82	Cg46–Pg1–Ps83	Cg46–Pg1–Ps84
25	Cg46–Pg1–Ps85	Cg46–Pg1–Ps86	Cg46–Pg1–Ps87	Cg46–Pg1–Ps88
	Cg46–Pg1–Ps89	Cg46–Pg1–Ps90	Cg46–Pg1–Ps91	Cg46–Pg1–Ps92
	Cg46–Pg1–Ps93	Cg46–Pg1–Ps94	Cg46–Pg1–Ps95	Cg46–Pg1–Ps96
	Cg46–Pg1–Ps97	Cg46–Pg1–Ps98	Cg46–Pg1–Ps99	Cg46–Pg1–Ps100
	Cg46–Pg1–Ps101	Cg46–Pg1–Ps102	Cg46–Pg1–Ps103	Cg46–Pg1–Ps104
30	Cg46–Pg1–Ps105	Cg46–Pg1–Ps106	Cg46–Pg1–Ps107	Cg46–Pg1–Ps108
	Cg46–Pg1–Ps109	Cg46–Pg1–Ps110	Cg46–Pg1–Ps111	Cg46–Pg1–Ps112
	Cg46–Pg1–Ps113	Cg46–Pg1–Ps114	Cg46–Pg1–Ps115	Cg46–Pg1–Ps116
	Cg46–Pg1–Ps117	Cg46–Pg1–Ps118	Cg46–Pg1–Ps119	Cg46–Pg1–Ps120
	Cg46–Pg1–Ps121	Cg46–Pg1–Ps122	Cg46–Pg1–Ps123	Cg46–Pg1–Ps124
35	Cg46–Pg1–Ps125	Cg46–Pg1–Ps126	Cg46–Pg1–Ps127	Cg46–Pg1–Ps128
	Cg46–Pg1–Ps129	Cg46–Pg1–Ps130	Cg46–Pg1–Ps131	Cg46–Pg1–Ps132
	Cg46–Pg1–Ps133	Cg46–Pg1–Ps134	Cg46–Pg1–Ps135	Cg46–Pg1–Ps136
	Cg46–Pg1–Ps137	Cg46–Pg1–Ps138	Cg46–Pg1–Ps139	Cg46–Pg1–Ps140
	Cg46–Pg1–Ps141	Cg46–Pg1–Ps142	Cg46–Pg1–Ps143	Cg46–Pg1–Ps144
40	Cg46–Pg1–Ps145	Cg46–Pg1–Ps146	Cg46–Pg1–Ps147	Cg46–Pg1–Ps148
	Cg46–Pg1–Ps149	Cg46–Pg1–Ps150	Cg46–Pg1–Ps151	Cg46–Pg1–Ps152
	Cg46–Pg1–Ps153	Cg46–Pg1–Ps154	Cg46–Pg1–Ps155	Cg46–Pg1–Ps156
	Cg46–Pg1–Ps157	Cg46–Pg1–Ps158	Cg46–Pg1–Ps159	Cg46–Pg1–Ps160
	Cg46–Pg1–Ps161	Cg46–Pg1–Ps162	Cg46–Pg1–Ps163	Cg46–Pg1–Ps164
45	Cg46–Pg1–Ps165	Cg46–Pg1–Ps166	Cg46–Pg1–Ps167	Cg46–Pg1–Ps168
	Cg46–Pg1–Ps169	Cg46–Pg1–Ps170	Cg46–Pg1–Ps171	Cg46–Pg1–Ps172
	Cg46–Pg1–Ps173	Cg46–Pg1–Ps174	Cg46–Pg1–Ps175	Cg46–Pg1–Ps176
	Cg46–Pg1–Ps177	Cg46–Pg1–Ps178	Cg46–Pg1–Ps179	Cg46–Pg1–Ps180
	Cg46–Pg1–Ps181	Cg46–Pg1–Ps182	Cg46–Pg1–Ps183	Cg46–Pg1–Ps184
50	Cg46–Pg1–Ps185	Cg46–Pg1–Ps186	Cg46–Pg1–Ps187	Cg46–Pg1–Ps188
	Cg46–Pg1–Ps189	Cg46–Pg1–Ps190	Cg46–Pg1–Ps191	Cg46–Pg1–Ps192
	Cg46–Pg1–Ps193	Cg46–Pg1–Ps194	Cg46–Pg1–Ps195	Cg46–Pg1–Ps196

Cg46–Pg1–Ps197	Cg46–Pg1–Ps198	Cg46–Pg1–Ps199	Cg46–Pg1–Ps200
Cg46–Pg1–Ps201	Cg46–Pg1–Ps202	Cg46–Pg1–Ps203	Cg46–Pg1–Ps204
Cg46–Pg1–Ps205	Cg46–Pg1–Ps206	Cg46–Pg1–Ps207	Cg46–Pg1–Ps208
Cg46–Pg1–Ps209	Cg46–Pg1–Ps210	Cg46–Pg1–Ps211	Cg46–Pg1–Ps212
Cg46–Pg1–Ps213	Cg46–Pg1–Ps214	Cg46–Pg1–Ps215	Cg46–Pg1–Ps216
Cg46–Pg1–Ps217	Cg46–Pg1–Ps218	Cg46–Pg1–Ps219	Cg46–Pg1–Ps220
Cg46–Pg1–Ps221	Cg46–Pg1–Ps222	Cg46–Pg1–Ps223	Cg46–Pg1–Ps224
Cg46–Pg1–Ps225	Cg46–Pg1–Ps226	Cg46–Pg1–Ps227	Cg46–Pg1–Ps228
Cg46–Pg1–Ps229	Cg46–Pg1–Ps230	Cg46–Pg1–Ps231	Cg46–Pg1–Ps232
Cg46–Pg1–Ps233	Cg46–Pg1–Ps234	Cg46–Pg1–Ps235	Cg46–Pg1–Ps236
Cg46–Pg1–Ps237	Cg46–Pg1–Ps238	Cg46–Pg1–Ps239	Cg46–Pg1–Ps240
Cg46–Pg1–Ps241	Cg46–Pg1–Ps242	Cg46–Pg1–Ps243	

Cg47–Pg1–Ps1	Cg47–Pg1–Ps2	Cg47–Pg1–Ps3	Cg47–Pg1–Ps4
Cg47–Pg1–Ps5	Cg47–Pg1–Ps6	Cg47–Pg1–Ps7	Cg47–Pg1–Ps8
Cg47–Pg1–Ps9	Cg47–Pg1–Ps10	Cg47–Pg1–Ps11	Cg47–Pg1–Ps12
Cg47–Pg1–Ps13	Cg47–Pg1–Ps14	Cg47–Pg1–Ps15	Cg47–Pg1–Ps16
Cg47–Pg1–Ps17	Cg47–Pg1–Ps18	Cg47–Pg1–Ps19	Cg47–Pg1–Ps20
Cg47–Pg1–Ps21	Cg47–Pg1–Ps22	Cg47–Pg1–Ps23	Cg47–Pg1–Ps24
Cg47–Pg1–Ps25	Cg47–Pg1–Ps26	Cg47–Pg1–Ps27	Cg47–Pg1–Ps28
Cg47–Pg1–Ps29	Cg47–Pg1–Ps30	Cg47–Pg1–Ps31	Cg47–Pg1–Ps32
Cg47–Pg1–Ps33	Cg47–Pg1–Ps34	Cg47–Pg1–Ps35	Cg47–Pg1–Ps36
Cg47–Pg1–Ps37	Cg47–Pg1–Ps38	Cg47–Pg1–Ps39	Cg47–Pg1–Ps40
Cg47–Pg1–Ps41	Cg47–Pg1–Ps42	Cg47–Pg1–Ps43	Cg47–Pg1–Ps44
Cg47–Pg1–Ps45	Cg47–Pg1–Ps46	Cg47–Pg1–Ps47	Cg47–Pg1–Ps48
Cg47–Pg1–Ps49	Cg47–Pg1–Ps50	Cg47–Pg1–Ps51	Cg47–Pg1–Ps52
Cg47–Pg1–Ps53	Cg47–Pg1–Ps54	Cg47–Pg1–Ps55	Cg47–Pg1–Ps56
Cg47–Pg1–Ps57	Cg47–Pg1–Ps58	Cg47–Pg1–Ps59	Cg47–Pg1–Ps60
Cg47–Pg1–Ps61	Cg47–Pg1–Ps62	Cg47–Pg1–Ps63	Cg47–Pg1–Ps64
Cg47–Pg1–Ps65	Cg47–Pg1–Ps66	Cg47–Pg1–Ps67	Cg47–Pg1–Ps68
Cg47–Pg1–Ps69	Cg47–Pg1–Ps70	Cg47–Pg1–Ps71	Cg47–Pg1–Ps72
Cg47–Pg1–Ps73	Cg47–Pg1–Ps74	Cg47–Pg1–Ps75	Cg47–Pg1–Ps76
Cg47–Pg1–Ps77	Cg47–Pg1–Ps78	Cg47–Pg1–Ps79	Cg47–Pg1–Ps80
Cg47–Pg1–Ps81	Cg47–Pg1–Ps82	Cg47–Pg1–Ps83	Cg47–Pg1–Ps84
Cg47–Pg1–Ps85	Cg47–Pg1–Ps86	Cg47–Pg1–Ps87	Cg47–Pg1–Ps88
Cg47–Pg1–Ps89	Cg47–Pg1–Ps90	Cg47–Pg1–Ps91	Cg47–Pg1–Ps92
Cg47–Pg1–Ps93	Cg47–Pg1–Ps94	Cg47–Pg1–Ps95	Cg47–Pg1–Ps96
Cg47–Pg1–Ps97	Cg47–Pg1–Ps98	Cg47–Pg1–Ps99	Cg47–Pg1–Ps100
Cg47–Pg1–Ps101	Cg47–Pg1–Ps102	Cg47–Pg1–Ps103	Cg47–Pg1–Ps104
Cg47–Pg1–Ps105	Cg47–Pg1–Ps106	Cg47–Pg1–Ps107	Cg47–Pg1–Ps108
Cg47–Pg1–Ps109	Cg47–Pg1–Ps110	Cg47–Pg1–Ps111	Cg47–Pg1–Ps112
Cg47–Pg1–Ps113	Cg47–Pg1–Ps114	Cg47–Pg1–Ps115	Cg47–Pg1–Ps116
Cg47–Pg1–Ps117	Cg47–Pg1–Ps118	Cg47–Pg1–Ps119	Cg47–Pg1–Ps120
Cg47–Pg1–Ps121	Cg47–Pg1–Ps122	Cg47–Pg1–Ps123	Cg47–Pg1–Ps124
Cg47–Pg1–Ps125	Cg47–Pg1–Ps126	Cg47–Pg1–Ps127	Cg47–Pg1–Ps128
Cg47–Pg1–Ps129	Cg47–Pg1–Ps130	Cg47–Pg1–Ps131	Cg47–Pg1–Ps132
Cg47–Pg1–Ps133	Cg47–Pg1–Ps134	Cg47–Pg1–Ps135	Cg47–Pg1–Ps136
Cg47–Pg1–Ps137	Cg47–Pg1–Ps138	Cg47–Pg1–Ps139	Cg47–Pg1–Ps140
Cg47–Pg1–Ps141	Cg47–Pg1–Ps142	Cg47–Pg1–Ps143	Cg47–Pg1–Ps144
Cg47–Pg1–Ps145	Cg47–Pg1–Ps146	Cg47–Pg1–Ps147	Cg47–Pg1–Ps148
Cg47–Pg1–Ps149	Cg47–Pg1–Ps150	Cg47–Pg1–Ps151	Cg47–Pg1–Ps152
Cg47–Pg1–Ps153	Cg47–Pg1–Ps154	Cg47–Pg1–Ps155	Cg47–Pg1–Ps156

Cg47–Pg1–Ps157	Cg47–Pg1–Ps158	Cg47–Pg1–Ps159	Cg47–Pg1–Ps160
Cg47–Pg1–Ps161	Cg47–Pg1–Ps162	Cg47–Pg1–Ps163	Cg47–Pg1–Ps164
Cg47–Pg1–Ps165	Cg47–Pg1–Ps166	Cg47–Pg1–Ps167	Cg47–Pg1–Ps168
Cg47–Pg1–Ps169	Cg47–Pg1–Ps170	Cg47–Pg1–Ps171	Cg47–Pg1–Ps172
Cg47–Pg1–Ps173	Cg47–Pg1–Ps174	Cg47–Pg1–Ps175	Cg47–Pg1–Ps176
Cg47–Pg1–Ps177	Cg47–Pg1–Ps178	Cg47–Pg1–Ps179	Cg47–Pg1–Ps180
Cg47–Pg1–Ps181	Cg47–Pg1–Ps182	Cg47–Pg1–Ps183	Cg47–Pg1–Ps184
Cg47–Pg1–Ps185	Cg47–Pg1–Ps186	Cg47–Pg1–Ps187	Cg47–Pg1–Ps188
Cg47–Pg1–Ps189	Cg47–Pg1–Ps190	Cg47–Pg1–Ps191	Cg47–Pg1–Ps192
Cg47–Pg1–Ps193	Cg47–Pg1–Ps194	Cg47–Pg1–Ps195	Cg47–Pg1–Ps196
Cg47–Pg1–Ps197	Cg47–Pg1–Ps198	Cg47–Pg1–Ps199	Cg47–Pg1–Ps200
Cg47–Pg1–Ps201	Cg47–Pg1–Ps202	Cg47–Pg1–Ps203	Cg47–Pg1–Ps204
Cg47–Pg1–Ps205	Cg47–Pg1–Ps206	Cg47–Pg1–Ps207	Cg47–Pg1–Ps208
Cg47–Pg1–Ps209	Cg47–Pg1–Ps210	Cg47–Pg1–Ps211	Cg47–Pg1–Ps212
Cg47–Pg1–Ps213	Cg47–Pg1–Ps214	Cg47–Pg1–Ps215	Cg47–Pg1–Ps216
Cg47–Pg1–Ps217	Cg47–Pg1–Ps218	Cg47–Pg1–Ps219	Cg47–Pg1–Ps220
Cg47–Pg1–Ps221	Cg47–Pg1–Ps222	Cg47–Pg1–Ps223	Cg47–Pg1–Ps224
Cg47–Pg1–Ps225	Cg47–Pg1–Ps226	Cg47–Pg1–Ps227	Cg47–Pg1–Ps228
Cg47–Pg1–Ps229	Cg47–Pg1–Ps230	Cg47–Pg1–Ps231	Cg47–Pg1–Ps232
Cg47–Pg1–Ps233	Cg47–Pg1–Ps234	Cg47–Pg1–Ps235	Cg47–Pg1–Ps236
Cg47–Pg1–Ps237	Cg47–Pg1–Ps238	Cg47–Pg1–Ps239	Cg47–Pg1–Ps240
Cg47–Pg1–Ps241	Cg47–Pg1–Ps242	Cg47–Pg1–Ps243	

Cg48–Pg1–Ps1	Cg48–Pg1–Ps2	Cg48–Pg1–Ps3	Cg48–Pg1–Ps4
Cg48–Pg1–Ps5	Cg48–Pg1–Ps6	Cg48–Pg1–Ps7	Cg48–Pg1–Ps8
Cg48–Pg1–Ps9	Cg48–Pg1–Ps10	Cg48–Pg1–Ps11	Cg48–Pg1–Ps12
Cg48–Pg1–Ps13	Cg48–Pg1–Ps14	Cg48–Pg1–Ps15	Cg48–Pg1–Ps16
Cg48–Pg1–Ps17	Cg48–Pg1–Ps18	Cg48–Pg1–Ps19	Cg48–Pg1–Ps20
Cg48–Pg1–Ps21	Cg48–Pg1–Ps22	Cg48–Pg1–Ps23	Cg48–Pg1–Ps24
Cg48–Pg1–Ps25	Cg48–Pg1–Ps26	Cg48–Pg1–Ps27	Cg48–Pg1–Ps28
Cg48–Pg1–Ps29	Cg48–Pg1–Ps30	Cg48–Pg1–Ps31	Cg48–Pg1–Ps32
Cg48–Pg1–Ps33	Cg48–Pg1–Ps34	Cg48–Pg1–Ps35	Cg48–Pg1–Ps36
Cg48–Pg1–Ps37	Cg48–Pg1–Ps38	Cg48–Pg1–Ps39	Cg48–Pg1–Ps40
Cg48–Pg1–Ps41	Cg48–Pg1–Ps42	Cg48–Pg1–Ps43	Cg48–Pg1–Ps44
Cg48–Pg1–Ps45	Cg48–Pg1–Ps46	Cg48–Pg1–Ps47	Cg48–Pg1–Ps48
Cg48–Pg1–Ps49	Cg48–Pg1–Ps50	Cg48–Pg1–Ps51	Cg48–Pg1–Ps52
Cg48–Pg1–Ps53	Cg48–Pg1–Ps54	Cg48–Pg1–Ps55	Cg48–Pg1–Ps56
Cg48–Pg1–Ps57	Cg48–Pg1–Ps58	Cg48–Pg1–Ps59	Cg48–Pg1–Ps60
Cg48–Pg1–Ps61	Cg48–Pg1–Ps62	Cg48–Pg1–Ps63	Cg48–Pg1–Ps64
Cg48–Pg1–Ps65	Cg48–Pg1–Ps66	Cg48–Pg1–Ps67	Cg48–Pg1–Ps68
Cg48–Pg1–Ps69	Cg48–Pg1–Ps70	Cg48–Pg1–Ps71	Cg48–Pg1–Ps72
Cg48–Pg1–Ps73	Cg48–Pg1–Ps74	Cg48–Pg1–Ps75	Cg48–Pg1–Ps76
Cg48–Pg1–Ps77	Cg48–Pg1–Ps78	Cg48–Pg1–Ps79	Cg48–Pg1–Ps80
Cg48–Pg1–Ps81	Cg48–Pg1–Ps82	Cg48–Pg1–Ps83	Cg48–Pg1–Ps84
Cg48–Pg1–Ps85	Cg48–Pg1–Ps86	Cg48–Pg1–Ps87	Cg48–Pg1–Ps88
Cg48–Pg1–Ps89	Cg48–Pg1–Ps90	Cg48–Pg1–Ps91	Cg48–Pg1–Ps92
Cg48–Pg1–Ps93	Cg48–Pg1–Ps94	Cg48–Pg1–Ps95	Cg48–Pg1–Ps96
Cg48–Pg1–Ps97	Cg48–Pg1–Ps98	Cg48–Pg1–Ps99	Cg48–Pg1–Ps100
Cg48–Pg1–Ps101	Cg48–Pg1–Ps102	Cg48–Pg1–Ps103	Cg48–Pg1–Ps104
Cg48–Pg1–Ps105	Cg48–Pg1–Ps106	Cg48–Pg1–Ps107	Cg48–Pg1–Ps108
Cg48–Pg1–Ps109	Cg48–Pg1–Ps110	Cg48–Pg1–Ps111	Cg48–Pg1–Ps112
Cg48–Pg1–Ps113	Cg48–Pg1–Ps114	Cg48–Pg1–Ps115	Cg48–Pg1–Ps116

Cg48–Pg1–Ps117	Cg48–Pg1–Ps118	Cg48–Pg1–Ps119	Cg48–Pg1–Ps120
Cg48–Pg1–Ps121	Cg48–Pg1–Ps122	Cg48–Pg1–Ps123	Cg48–Pg1–Ps124
Cg48–Pg1–Ps125	Cg48–Pg1–Ps126	Cg48–Pg1–Ps127	Cg48–Pg1–Ps128
Cg48–Pg1–Ps129	Cg48–Pg1–Ps130	Cg48–Pg1–Ps131	Cg48–Pg1–Ps132
Cg48–Pg1–Ps133	Cg48–Pg1–Ps134	Cg48–Pg1–Ps135	Cg48–Pg1–Ps136
Cg48–Pg1–Ps137	Cg48–Pg1–Ps138	Cg48–Pg1–Ps139	Cg48–Pg1–Ps140
Cg48–Pg1–Ps141	Cg48–Pg1–Ps142	Cg48–Pg1–Ps143	Cg48–Pg1–Ps144
Cg48–Pg1–Ps145	Cg48–Pg1–Ps146	Cg48–Pg1–Ps147	Cg48–Pg1–Ps148
Cg48–Pg1–Ps149	Cg48–Pg1–Ps150	Cg48–Pg1–Ps151	Cg48–Pg1–Ps152
Cg48–Pg1–Ps153	Cg48–Pg1–Ps154	Cg48–Pg1–Ps155	Cg48–Pg1–Ps156
Cg48–Pg1–Ps157	Cg48–Pg1–Ps158	Cg48–Pg1–Ps159	Cg48–Pg1–Ps160
Cg48–Pg1–Ps161	Cg48–Pg1–Ps162	Cg48–Pg1–Ps163	Cg48–Pg1–Ps164
Cg48–Pg1–Ps165	Cg48–Pg1–Ps166	Cg48–Pg1–Ps167	Cg48–Pg1–Ps168
Cg48–Pg1–Ps169	Cg48–Pg1–Ps170	Cg48–Pg1–Ps171	Cg48–Pg1–Ps172
Cg48–Pg1–Ps173	Cg48–Pg1–Ps174	Cg48–Pg1–Ps175	Cg48–Pg1–Ps176
Cg48–Pg1–Ps177	Cg48–Pg1–Ps178	Cg48–Pg1–Ps179	Cg48–Pg1–Ps180
Cg48–Pg1–Ps181	Cg48–Pg1–Ps182	Cg48–Pg1–Ps183	Cg48–Pg1–Ps184
Cg48–Pg1–Ps185	Cg48–Pg1–Ps186	Cg48–Pg1–Ps187	Cg48–Pg1–Ps188
Cg48–Pg1–Ps189	Cg48–Pg1–Ps190	Cg48–Pg1–Ps191	Cg48–Pg1–Ps192
Cg48–Pg1–Ps193	Cg48–Pg1–Ps194	Cg48–Pg1–Ps195	Cg48–Pg1–Ps196
Cg48–Pg1–Ps197	Cg48–Pg1–Ps198	Cg48–Pg1–Ps199	Cg48–Pg1–Ps200
Cg48–Pg1–Ps201	Cg48–Pg1–Ps202	Cg48–Pg1–Ps203	Cg48–Pg1–Ps204
Cg48–Pg1–Ps205	Cg48–Pg1–Ps206	Cg48–Pg1–Ps207	Cg48–Pg1–Ps208
Cg48–Pg1–Ps209	Cg48–Pg1–Ps210	Cg48–Pg1–Ps211	Cg48–Pg1–Ps212
Cg48–Pg1–Ps213	Cg48–Pg1–Ps214	Cg48–Pg1–Ps215	Cg48–Pg1–Ps216
Cg48–Pg1–Ps217	Cg48–Pg1–Ps218	Cg48–Pg1–Ps219	Cg48–Pg1–Ps220
Cg48–Pg1–Ps221	Cg48–Pg1–Ps222	Cg48–Pg1–Ps223	Cg48–Pg1–Ps224
Cg48–Pg1–Ps225	Cg48–Pg1–Ps226	Cg48–Pg1–Ps227	Cg48–Pg1–Ps228
Cg48–Pg1–Ps229	Cg48–Pg1–Ps230	Cg48–Pg1–Ps231	Cg48–Pg1–Ps232
Cg48–Pg1–Ps233	Cg48–Pg1–Ps234	Cg48–Pg1–Ps235	Cg48–Pg1–Ps236
Cg48–Pg1–Ps237	Cg48–Pg1–Ps238	Cg48–Pg1–Ps239	Cg48–Pg1–Ps240
Cg48–Pg1–Ps241	Cg48–Pg1–Ps242	Cg48–Pg1–Ps243	

Cg49–Pg1–Ps1	Cg49–Pg1–Ps2	Cg49–Pg1–Ps3	Cg49–Pg1–Ps4
Cg49–Pg1–Ps5	Cg49–Pg1–Ps6	Cg49–Pg1–Ps7	Cg49–Pg1–Ps8
Cg49–Pg1–Ps9	Cg49–Pg1–Ps10	Cg49–Pg1–Ps11	Cg49–Pg1–Ps12
Cg49–Pg1–Ps13	Cg49–Pg1–Ps14	Cg49–Pg1–Ps15	Cg49–Pg1–Ps16
Cg49–Pg1–Ps17	Cg49–Pg1–Ps18	Cg49–Pg1–Ps19	Cg49–Pg1–Ps20
Cg49–Pg1–Ps21	Cg49–Pg1–Ps22	Cg49–Pg1–Ps23	Cg49–Pg1–Ps24
Cg49–Pg1–Ps25	Cg49–Pg1–Ps26	Cg49–Pg1–Ps27	Cg49–Pg1–Ps28
Cg49–Pg1–Ps29	Cg49–Pg1–Ps30	Cg49–Pg1–Ps31	Cg49–Pg1–Ps32
Cg49–Pg1–Ps33	Cg49–Pg1–Ps34	Cg49–Pg1–Ps35	Cg49–Pg1–Ps36
Cg49–Pg1–Ps37	Cg49–Pg1–Ps38	Cg49–Pg1–Ps39	Cg49–Pg1–Ps40
Cg49–Pg1–Ps41	Cg49–Pg1–Ps42	Cg49–Pg1–Ps43	Cg49–Pg1–Ps44
Cg49–Pg1–Ps45	Cg49–Pg1–Ps46	Cg49–Pg1–Ps47	Cg49–Pg1–Ps48
Cg49–Pg1–Ps49	Cg49–Pg1–Ps50	Cg49–Pg1–Ps51	Cg49–Pg1–Ps52
Cg49–Pg1–Ps53	Cg49–Pg1–Ps54	Cg49–Pg1–Ps55	Cg49–Pg1–Ps56
Cg49–Pg1–Ps57	Cg49–Pg1–Ps58	Cg49–Pg1–Ps59	Cg49–Pg1–Ps60
Cg49–Pg1–Ps61	Cg49–Pg1–Ps62	Cg49–Pg1–Ps63	Cg49–Pg1–Ps64
Cg49–Pg1–Ps65	Cg49–Pg1–Ps66	Cg49–Pg1–Ps67	Cg49–Pg1–Ps68
Cg49–Pg1–Ps69	Cg49–Pg1–Ps70	Cg49–Pg1–Ps71	Cg49–Pg1–Ps72
Cg49–Pg1–Ps73	Cg49–Pg1–Ps74	Cg49–Pg1–Ps75	Cg49–Pg1–Ps76

	Cg49–Pg1–Ps77	Cg49–Pg1–Ps78	Cg49–Pg1–Ps79	Cg49–Pg1–Ps80
	Cg49–Pg1–Ps81	Cg49–Pg1–Ps82	Cg49–Pg1–Ps83	Cg49–Pg1–Ps84
	Cg49–Pg1–Ps85	Cg49–Pg1–Ps86	Cg49–Pg1–Ps87	Cg49–Pg1–Ps88
	Cg49–Pg1–Ps89	Cg49–Pg1–Ps90	Cg49–Pg1–Ps91	Cg49–Pg1–Ps92
5	Cg49–Pg1–Ps93	Cg49–Pg1–Ps94	Cg49–Pg1–Ps95	Cg49–Pg1–Ps96
	Cg49–Pg1–Ps97	Cg49–Pg1–Ps98	Cg49–Pg1–Ps99	Cg49–Pg1–Ps100
	Cg49–Pg1–Ps101	Cg49–Pg1–Ps102	Cg49–Pg1–Ps103	Cg49–Pg1–Ps104
	Cg49–Pg1–Ps105	Cg49–Pg1–Ps106	Cg49–Pg1–Ps107	Cg49–Pg1–Ps108
	Cg49–Pg1–Ps109	Cg49–Pg1–Ps110	Cg49–Pg1–Ps111	Cg49–Pg1–Ps112
10	Cg49–Pg1–Ps113	Cg49–Pg1–Ps114	Cg49–Pg1–Ps115	Cg49–Pg1–Ps116
	Cg49–Pg1–Ps117	Cg49–Pg1–Ps118	Cg49–Pg1–Ps119	Cg49–Pg1–Ps120
	Cg49–Pg1–Ps121	Cg49–Pg1–Ps122	Cg49–Pg1–Ps123	Cg49–Pg1–Ps124
	Cg49–Pg1–Ps125	Cg49–Pg1–Ps126	Cg49–Pg1–Ps127	Cg49–Pg1–Ps128
	Cg49–Pg1–Ps129	Cg49–Pg1–Ps130	Cg49–Pg1–Ps131	Cg49–Pg1–Ps132
15	Cg49–Pg1–Ps133	Cg49–Pg1–Ps134	Cg49–Pg1–Ps135	Cg49–Pg1–Ps136
	Cg49–Pg1–Ps137	Cg49–Pg1–Ps138	Cg49–Pg1–Ps139	Cg49–Pg1–Ps140
	Cg49–Pg1–Ps141	Cg49–Pg1–Ps142	Cg49–Pg1–Ps143	Cg49–Pg1–Ps144
	Cg49–Pg1–Ps145	Cg49–Pg1–Ps146	Cg49–Pg1–Ps147	Cg49–Pg1–Ps148
	Cg49–Pg1–Ps149	Cg49–Pg1–Ps150	Cg49–Pg1–Ps151	Cg49–Pg1–Ps152
20	Cg49–Pg1–Ps153	Cg49–Pg1–Ps154	Cg49–Pg1–Ps155	Cg49–Pg1–Ps156
	Cg49–Pg1–Ps157	Cg49–Pg1–Ps158	Cg49–Pg1–Ps159	Cg49–Pg1–Ps160
	Cg49–Pg1–Ps161	Cg49–Pg1–Ps162	Cg49–Pg1–Ps163	Cg49–Pg1–Ps164
	Cg49–Pg1–Ps165	Cg49–Pg1–Ps166	Cg49–Pg1–Ps167	Cg49–Pg1–Ps168
	Cg49–Pg1–Ps169	Cg49–Pg1–Ps170	Cg49–Pg1–Ps171	Cg49–Pg1–Ps172
25	Cg49–Pg1–Ps173	Cg49–Pg1–Ps174	Cg49–Pg1–Ps175	Cg49–Pg1–Ps176
	Cg49–Pg1–Ps177	Cg49–Pg1–Ps178	Cg49–Pg1–Ps179	Cg49–Pg1–Ps180
	Cg49–Pg1–Ps181	Cg49–Pg1–Ps182	Cg49–Pg1–Ps183	Cg49–Pg1–Ps184
	Cg49–Pg1–Ps185	Cg49–Pg1–Ps186	Cg49–Pg1–Ps187	Cg49–Pg1–Ps188
	Cg49–Pg1–Ps189	Cg49–Pg1–Ps190	Cg49–Pg1–Ps191	Cg49–Pg1–Ps192
30	Cg49–Pg1–Ps193	Cg49–Pg1–Ps194	Cg49–Pg1–Ps195	Cg49–Pg1–Ps196
	Cg49–Pg1–Ps197	Cg49–Pg1–Ps198	Cg49–Pg1–Ps199	Cg49–Pg1–Ps200
	Cg49–Pg1–Ps201	Cg49–Pg1–Ps202	Cg49–Pg1–Ps203	Cg49–Pg1–Ps204
	Cg49–Pg1–Ps205	Cg49–Pg1–Ps206	Cg49–Pg1–Ps207	Cg49–Pg1–Ps208
	Cg49–Pg1–Ps209	Cg49–Pg1–Ps210	Cg49–Pg1–Ps211	Cg49–Pg1–Ps212
35	Cg49–Pg1–Ps213	Cg49–Pg1–Ps214	Cg49–Pg1–Ps215	Cg49–Pg1–Ps216
	Cg49–Pg1–Ps217	Cg49–Pg1–Ps218	Cg49–Pg1–Ps219	Cg49–Pg1–Ps220
	Cg49–Pg1–Ps221	Cg49–Pg1–Ps222	Cg49–Pg1–Ps223	Cg49–Pg1–Ps224
	Cg49–Pg1–Ps225	Cg49–Pg1–Ps226	Cg49–Pg1–Ps227	Cg49–Pg1–Ps228
	Cg49–Pg1–Ps229	Cg49–Pg1–Ps230	Cg49–Pg1–Ps231	Cg49–Pg1–Ps232
40	Cg49–Pg1–Ps233	Cg49–Pg1–Ps234	Cg49–Pg1–Ps235	Cg49–Pg1–Ps236
	Cg49–Pg1–Ps237	Cg49–Pg1–Ps238	Cg49–Pg1–Ps239	Cg49–Pg1–Ps240
	Cg49–Pg1–Ps241	Cg49–Pg1–Ps242	Cg49–Pg1–Ps243	
	Cg50–Pg1–Ps1	Cg50–Pg1–Ps2	Cg50–Pg1–Ps3	Cg50–Pg1–Ps4
45	Cg50–Pg1–Ps5	Cg50–Pg1–Ps6	Cg50–Pg1–Ps7	Cg50–Pg1–Ps8
	Cg50–Pg1–Ps9	Cg50–Pg1–Ps10	Cg50–Pg1–Ps11	Cg50–Pg1–Ps12
	Cg50–Pg1–Ps13	Cg50–Pg1–Ps14	Cg50–Pg1–Ps15	Cg50–Pg1–Ps16
	Cg50–Pg1–Ps17	Cg50–Pg1–Ps18	Cg50–Pg1–Ps19	Cg50–Pg1–Ps20
	Cg50–Pg1–Ps21	Cg50–Pg1–Ps22	Cg50–Pg1–Ps23	Cg50–Pg1–Ps24
50	Cg50–Pg1–Ps25	Cg50–Pg1–Ps26	Cg50–Pg1–Ps27	Cg50–Pg1–Ps28
	Cg50–Pg1–Ps29	Cg50–Pg1–Ps30	Cg50–Pg1–Ps31	Cg50–Pg1–Ps32
	Cg50–Pg1–Ps33	Cg50–Pg1–Ps34	Cg50–Pg1–Ps35	Cg50–Pg1–Ps36

	Cg50–Pg1–Ps37	Cg50–Pg1–Ps38	Cg50–Pg1–Ps39	Cg50–Pg1–Ps40
	Cg50–Pg1–Ps41	Cg50–Pg1–Ps42	Cg50–Pg1–Ps43	Cg50–Pg1–Ps44
	Cg50–Pg1–Ps45	Cg50–Pg1–Ps46	Cg50–Pg1–Ps47	Cg50–Pg1–Ps48
	Cg50–Pg1–Ps49	Cg50–Pg1–Ps50	Cg50–Pg1–Ps51	Cg50–Pg1–Ps52
5	Cg50–Pg1–Ps53	Cg50–Pg1–Ps54	Cg50–Pg1–Ps55	Cg50–Pg1–Ps56
	Cg50–Pg1–Ps57	Cg50–Pg1–Ps58	Cg50–Pg1–Ps59	Cg50–Pg1–Ps60
	Cg50–Pg1–Ps61	Cg50–Pg1–Ps62	Cg50–Pg1–Ps63	Cg50–Pg1–Ps64
	Cg50–Pg1–Ps65	Cg50–Pg1–Ps66	Cg50–Pg1–Ps67	Cg50–Pg1–Ps68
	Cg50–Pg1–Ps69	Cg50–Pg1–Ps70	Cg50–Pg1–Ps71	Cg50–Pg1–Ps72
10	Cg50–Pg1–Ps73	Cg50–Pg1–Ps74	Cg50–Pg1–Ps75	Cg50–Pg1–Ps76
	Cg50–Pg1–Ps77	Cg50–Pg1–Ps78	Cg50–Pg1–Ps79	Cg50–Pg1–Ps80
	Cg50–Pg1–Ps81	Cg50–Pg1–Ps82	Cg50–Pg1–Ps83	Cg50–Pg1–Ps84
	Cg50–Pg1–Ps85	Cg50–Pg1–Ps86	Cg50–Pg1–Ps87	Cg50–Pg1–Ps88
	Cg50–Pg1–Ps89	Cg50–Pg1–Ps90	Cg50–Pg1–Ps91	Cg50–Pg1–Ps92
15	Cg50–Pg1–Ps93	Cg50–Pg1–Ps94	Cg50–Pg1–Ps95	Cg50–Pg1–Ps96
	Cg50–Pg1–Ps97	Cg50–Pg1–Ps98	Cg50–Pg1–Ps99	Cg50–Pg1–Ps100
	Cg50–Pg1–Ps101	Cg50–Pg1–Ps102	Cg50–Pg1–Ps103	Cg50–Pg1–Ps104
	Cg50–Pg1–Ps105	Cg50–Pg1–Ps106	Cg50–Pg1–Ps107	Cg50–Pg1–Ps108
	Cg50–Pg1–Ps109	Cg50–Pg1–Ps110	Cg50–Pg1–Ps111	Cg50–Pg1–Ps112
20	Cg50–Pg1–Ps113	Cg50–Pg1–Ps114	Cg50–Pg1–Ps115	Cg50–Pg1–Ps116
	Cg50–Pg1–Ps117	Cg50–Pg1–Ps118	Cg50–Pg1–Ps119	Cg50–Pg1–Ps120
	Cg50–Pg1–Ps121	Cg50–Pg1–Ps122	Cg50–Pg1–Ps123	Cg50–Pg1–Ps124
	Cg50–Pg1–Ps125	Cg50–Pg1–Ps126	Cg50–Pg1–Ps127	Cg50–Pg1–Ps128
	Cg50–Pg1–Ps129	Cg50–Pg1–Ps130	Cg50–Pg1–Ps131	Cg50–Pg1–Ps132
25	Cg50–Pg1–Ps133	Cg50–Pg1–Ps134	Cg50–Pg1–Ps135	Cg50–Pg1–Ps136
	Cg50–Pg1–Ps137	Cg50–Pg1–Ps138	Cg50–Pg1–Ps139	Cg50–Pg1–Ps140
	Cg50–Pg1–Ps141	Cg50–Pg1–Ps142	Cg50–Pg1–Ps143	Cg50–Pg1–Ps144
	Cg50–Pg1–Ps145	Cg50–Pg1–Ps146	Cg50–Pg1–Ps147	Cg50–Pg1–Ps148
	Cg50–Pg1–Ps149	Cg50–Pg1–Ps150	Cg50–Pg1–Ps151	Cg50–Pg1–Ps152
30	Cg50–Pg1–Ps153	Cg50–Pg1–Ps154	Cg50–Pg1–Ps155	Cg50–Pg1–Ps156
	Cg50–Pg1–Ps157	Cg50–Pg1–Ps158	Cg50–Pg1–Ps159	Cg50–Pg1–Ps160
	Cg50–Pg1–Ps161	Cg50–Pg1–Ps162	Cg50–Pg1–Ps163	Cg50–Pg1–Ps164
	Cg50–Pg1–Ps165	Cg50–Pg1–Ps166	Cg50–Pg1–Ps167	Cg50–Pg1–Ps168
	Cg50–Pg1–Ps169	Cg50–Pg1–Ps170	Cg50–Pg1–Ps171	Cg50–Pg1–Ps172
35	Cg50–Pg1–Ps173	Cg50–Pg1–Ps174	Cg50–Pg1–Ps175	Cg50–Pg1–Ps176
	Cg50–Pg1–Ps177	Cg50–Pg1–Ps178	Cg50–Pg1–Ps179	Cg50–Pg1–Ps180
	Cg50–Pg1–Ps181	Cg50–Pg1–Ps182	Cg50–Pg1–Ps183	Cg50–Pg1–Ps184
	Cg50–Pg1–Ps185	Cg50–Pg1–Ps186	Cg50–Pg1–Ps187	Cg50–Pg1–Ps188
	Cg50–Pg1–Ps189	Cg50–Pg1–Ps190	Cg50–Pg1–Ps191	Cg50–Pg1–Ps192
40	Cg50–Pg1–Ps193	Cg50–Pg1–Ps194	Cg50–Pg1–Ps195	Cg50–Pg1–Ps196
	Cg50–Pg1–Ps197	Cg50–Pg1–Ps198	Cg50–Pg1–Ps199	Cg50–Pg1–Ps200
	Cg50–Pg1–Ps201	Cg50–Pg1–Ps202	Cg50–Pg1–Ps203	Cg50–Pg1–Ps204
	Cg50–Pg1–Ps205	Cg50–Pg1–Ps206	Cg50–Pg1–Ps207	Cg50–Pg1–Ps208
	Cg50–Pg1–Ps209	Cg50–Pg1–Ps210	Cg50–Pg1–Ps211	Cg50–Pg1–Ps212
45	Cg50–Pg1–Ps213	Cg50–Pg1–Ps214	Cg50–Pg1–Ps215	Cg50–Pg1–Ps216
	Cg50–Pg1–Ps217	Cg50–Pg1–Ps218	Cg50–Pg1–Ps219	Cg50–Pg1–Ps220
	Cg50–Pg1–Ps221	Cg50–Pg1–Ps222	Cg50–Pg1–Ps223	Cg50–Pg1–Ps224
	Cg50–Pg1–Ps225	Cg50–Pg1–Ps226	Cg50–Pg1–Ps227	Cg50–Pg1–Ps228
	Cg50–Pg1–Ps229	Cg50–Pg1–Ps230	Cg50–Pg1–Ps231	Cg50–Pg1–Ps232
50	Cg50–Pg1–Ps233	Cg50–Pg1–Ps234	Cg50–Pg1–Ps235	Cg50–Pg1–Ps236
	Cg50–Pg1–Ps237	Cg50–Pg1–Ps238	Cg50–Pg1–Ps239	Cg50–Pg1–Ps240
	Cg50–Pg1–Ps241	Cg50–Pg1–Ps242	Cg50–Pg1–Ps243	

	Cg51–Pg1–Ps1	Cg51–Pg1–Ps2	Cg51–Pg1–Ps3	Cg51–Pg1–Ps4
	Cg51–Pg1–Ps5	Cg51–Pg1–Ps6	Cg51–Pg1–Ps7	Cg51–Pg1–Ps8
	Cg51–Pg1–Ps9	Cg51–Pg1–Ps10	Cg51–Pg1–Ps11	Cg51–Pg1–Ps12
5	Cg51–Pg1–Ps13	Cg51–Pg1–Ps14	Cg51–Pg1–Ps15	Cg51–Pg1–Ps16
	Cg51–Pg1–Ps17	Cg51–Pg1–Ps18	Cg51–Pg1–Ps19	Cg51–Pg1–Ps20
	Cg51–Pg1–Ps21	Cg51–Pg1–Ps22	Cg51–Pg1–Ps23	Cg51–Pg1–Ps24
	Cg51–Pg1–Ps25	Cg51–Pg1–Ps26	Cg51–Pg1–Ps27	Cg51–Pg1–Ps28
	Cg51–Pg1–Ps29	Cg51–Pg1–Ps30	Cg51–Pg1–Ps31	Cg51–Pg1–Ps32
10	Cg51–Pg1–Ps33	Cg51–Pg1–Ps34	Cg51–Pg1–Ps35	Cg51–Pg1–Ps36
	Cg51–Pg1–Ps37	Cg51–Pg1–Ps38	Cg51–Pg1–Ps39	Cg51–Pg1–Ps40
	Cg51–Pg1–Ps41	Cg51–Pg1–Ps42	Cg51–Pg1–Ps43	Cg51–Pg1–Ps44
	Cg51–Pg1–Ps45	Cg51–Pg1–Ps46	Cg51–Pg1–Ps47	Cg51–Pg1–Ps48
	Cg51–Pg1–Ps49	Cg51–Pg1–Ps50	Cg51–Pg1–Ps51	Cg51–Pg1–Ps52
15	Cg51–Pg1–Ps53	Cg51–Pg1–Ps54	Cg51–Pg1–Ps55	Cg51–Pg1–Ps56
	Cg51–Pg1–Ps57	Cg51–Pg1–Ps58	Cg51–Pg1–Ps59	Cg51–Pg1–Ps60
	Cg51–Pg1–Ps61	Cg51–Pg1–Ps62	Cg51–Pg1–Ps63	Cg51–Pg1–Ps64
	Cg51–Pg1–Ps65	Cg51–Pg1–Ps66	Cg51–Pg1–Ps67	Cg51–Pg1–Ps68
	Cg51–Pg1–Ps69	Cg51–Pg1–Ps70	Cg51–Pg1–Ps71	Cg51–Pg1–Ps72
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	Cg51–Pg1–Ps77	Cg51–Pg1–Ps78	Cg51–Pg1–Ps79	Cg51–Pg1–Ps80
	Cg51–Pg1–Ps81	Cg51–Pg1–Ps82	Cg51–Pg1–Ps83	Cg51–Pg1–Ps84
	Cg51–Pg1–Ps85	Cg51–Pg1–Ps86	Cg51–Pg1–Ps87	Cg51–Pg1–Ps88
	Cg51–Pg1–Ps89	Cg51–Pg1–Ps90	Cg51–Pg1–Ps91	Cg51–Pg1–Ps92
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	Cg51–Pg1–Ps97	Cg51–Pg1–Ps98	Cg51–Pg1–Ps99	Cg51–Pg1–Ps100
	Cg51–Pg1–Ps101	Cg51–Pg1–Ps102	Cg51–Pg1–Ps103	Cg51–Pg1–Ps104
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	Cg51–Pg1–Ps117	Cg51–Pg1–Ps118	Cg51–Pg1–Ps119	Cg51–Pg1–Ps120
	Cg51–Pg1–Ps121	Cg51–Pg1–Ps122	Cg51–Pg1–Ps123	Cg51–Pg1–Ps124
	Cg51–Pg1–Ps125	Cg51–Pg1–Ps126	Cg51–Pg1–Ps127	Cg51–Pg1–Ps128
	Cg51–Pg1–Ps129	Cg51–Pg1–Ps130	Cg51–Pg1–Ps131	Cg51–Pg1–Ps132
35	Cg51–Pg1–Ps133	Cg51–Pg1–Ps134	Cg51–Pg1–Ps135	Cg51–Pg1–Ps136
	Cg51–Pg1–Ps137	Cg51–Pg1–Ps138	Cg51–Pg1–Ps139	Cg51–Pg1–Ps140
	Cg51–Pg1–Ps141	Cg51–Pg1–Ps142	Cg51–Pg1–Ps143	Cg51–Pg1–Ps144
	Cg51–Pg1–Ps145	Cg51–Pg1–Ps146	Cg51–Pg1–Ps147	Cg51–Pg1–Ps148
	Cg51–Pg1–Ps149	Cg51–Pg1–Ps150	Cg51–Pg1–Ps151	Cg51–Pg1–Ps152
40	Cg51–Pg1–Ps153	Cg51–Pg1–Ps154	Cg51–Pg1–Ps155	Cg51–Pg1–Ps156
	Cg51–Pg1–Ps157	Cg51–Pg1–Ps158	Cg51–Pg1–Ps159	Cg51–Pg1–Ps160
	Cg51–Pg1–Ps161	Cg51–Pg1–Ps162	Cg51–Pg1–Ps163	Cg51–Pg1–Ps164
	Cg51–Pg1–Ps165	Cg51–Pg1–Ps166	Cg51–Pg1–Ps167	Cg51–Pg1–Ps168
	Cg51–Pg1–Ps169	Cg51–Pg1–Ps170	Cg51–Pg1–Ps171	Cg51–Pg1–Ps172
45	Cg51–Pg1–Ps173	Cg51–Pg1–Ps174	Cg51–Pg1–Ps175	Cg51–Pg1–Ps176
	Cg51–Pg1–Ps177	Cg51–Pg1–Ps178	Cg51–Pg1–Ps179	Cg51–Pg1–Ps180
	Cg51–Pg1–Ps181	Cg51–Pg1–Ps182	Cg51–Pg1–Ps183	Cg51–Pg1–Ps184
	Cg51–Pg1–Ps185	Cg51–Pg1–Ps186	Cg51–Pg1–Ps187	Cg51–Pg1–Ps188
	Cg51–Pg1–Ps189	Cg51–Pg1–Ps190	Cg51–Pg1–Ps191	Cg51–Pg1–Ps192
50	Cg51–Pg1–Ps193	Cg51–Pg1–Ps194	Cg51–Pg1–Ps195	Cg51–Pg1–Ps196
	Cg51–Pg1–Ps197	Cg51–Pg1–Ps198	Cg51–Pg1–Ps199	Cg51–Pg1–Ps200
	Cg51–Pg1–Ps201	Cg51–Pg1–Ps202	Cg51–Pg1–Ps203	Cg51–Pg1–Ps204

	Cg51–Pg1–Ps205	Cg51–Pg1–Ps206	Cg51–Pg1–Ps207	Cg51–Pg1–Ps208
	Cg51–Pg1–Ps209	Cg51–Pg1–Ps210	Cg51–Pg1–Ps211	Cg51–Pg1–Ps212
	Cg51–Pg1–Ps213	Cg51–Pg1–Ps214	Cg51–Pg1–Ps215	Cg51–Pg1–Ps216
	Cg51–Pg1–Ps217	Cg51–Pg1–Ps218	Cg51–Pg1–Ps219	Cg51–Pg1–Ps220
5	Cg51–Pg1–Ps221	Cg51–Pg1–Ps222	Cg51–Pg1–Ps223	Cg51–Pg1–Ps224
	Cg51–Pg1–Ps225	Cg51–Pg1–Ps226	Cg51–Pg1–Ps227	Cg51–Pg1–Ps228
	Cg51–Pg1–Ps229	Cg51–Pg1–Ps230	Cg51–Pg1–Ps231	Cg51–Pg1–Ps232
	Cg51–Pg1–Ps233	Cg51–Pg1–Ps234	Cg51–Pg1–Ps235	Cg51–Pg1–Ps236
	Cg51–Pg1–Ps237	Cg51–Pg1–Ps238	Cg51–Pg1–Ps239	Cg51–Pg1–Ps240
10	Cg51–Pg1–Ps241	Cg51–Pg1–Ps242	Cg51–Pg1–Ps243	

	Cg52–Pg1–Ps1	Cg52–Pg1–Ps2	Cg52–Pg1–Ps3	Cg52–Pg1–Ps4
	Cg52–Pg1–Ps5	Cg52–Pg1–Ps6	Cg52–Pg1–Ps7	Cg52–Pg1–Ps8
	Cg52–Pg1–Ps9	Cg52–Pg1–Ps10	Cg52–Pg1–Ps11	Cg52–Pg1–Ps12
15	Cg52–Pg1–Ps13	Cg52–Pg1–Ps14	Cg52–Pg1–Ps15	Cg52–Pg1–Ps16
	Cg52–Pg1–Ps17	Cg52–Pg1–Ps18	Cg52–Pg1–Ps19	Cg52–Pg1–Ps20
	Cg52–Pg1–Ps21	Cg52–Pg1–Ps22	Cg52–Pg1–Ps23	Cg52–Pg1–Ps24
	Cg52–Pg1–Ps25	Cg52–Pg1–Ps26	Cg52–Pg1–Ps27	Cg52–Pg1–Ps28
	Cg52–Pg1–Ps29	Cg52–Pg1–Ps30	Cg52–Pg1–Ps31	Cg52–Pg1–Ps32
20	Cg52–Pg1–Ps33	Cg52–Pg1–Ps34	Cg52–Pg1–Ps35	Cg52–Pg1–Ps36
	Cg52–Pg1–Ps37	Cg52–Pg1–Ps38	Cg52–Pg1–Ps39	Cg52–Pg1–Ps40
	Cg52–Pg1–Ps41	Cg52–Pg1–Ps42	Cg52–Pg1–Ps43	Cg52–Pg1–Ps44
	Cg52–Pg1–Ps45	Cg52–Pg1–Ps46	Cg52–Pg1–Ps47	Cg52–Pg1–Ps48
	Cg52–Pg1–Ps49	Cg52–Pg1–Ps50	Cg52–Pg1–Ps51	Cg52–Pg1–Ps52
25	Cg52–Pg1–Ps53	Cg52–Pg1–Ps54	Cg52–Pg1–Ps55	Cg52–Pg1–Ps56
	Cg52–Pg1–Ps57	Cg52–Pg1–Ps58	Cg52–Pg1–Ps59	Cg52–Pg1–Ps60
	Cg52–Pg1–Ps61	Cg52–Pg1–Ps62	Cg52–Pg1–Ps63	Cg52–Pg1–Ps64
	Cg52–Pg1–Ps65	Cg52–Pg1–Ps66	Cg52–Pg1–Ps67	Cg52–Pg1–Ps68
	Cg52–Pg1–Ps69	Cg52–Pg1–Ps70	Cg52–Pg1–Ps71	Cg52–Pg1–Ps72
30	Cg52–Pg1–Ps73	Cg52–Pg1–Ps74	Cg52–Pg1–Ps75	Cg52–Pg1–Ps76
	Cg52–Pg1–Ps77	Cg52–Pg1–Ps78	Cg52–Pg1–Ps79	Cg52–Pg1–Ps80
	Cg52–Pg1–Ps81	Cg52–Pg1–Ps82	Cg52–Pg1–Ps83	Cg52–Pg1–Ps84
	Cg52–Pg1–Ps85	Cg52–Pg1–Ps86	Cg52–Pg1–Ps87	Cg52–Pg1–Ps88
	Cg52–Pg1–Ps89	Cg52–Pg1–Ps90	Cg52–Pg1–Ps91	Cg52–Pg1–Ps92
35	Cg52–Pg1–Ps93	Cg52–Pg1–Ps94	Cg52–Pg1–Ps95	Cg52–Pg1–Ps96
	Cg52–Pg1–Ps97	Cg52–Pg1–Ps98	Cg52–Pg1–Ps99	Cg52–Pg1–Ps100
	Cg52–Pg1–Ps101	Cg52–Pg1–Ps102	Cg52–Pg1–Ps103	Cg52–Pg1–Ps104
	Cg52–Pg1–Ps105	Cg52–Pg1–Ps106	Cg52–Pg1–Ps107	Cg52–Pg1–Ps108
	Cg52–Pg1–Ps109	Cg52–Pg1–Ps110	Cg52–Pg1–Ps111	Cg52–Pg1–Ps112
40	Cg52–Pg1–Ps113	Cg52–Pg1–Ps114	Cg52–Pg1–Ps115	Cg52–Pg1–Ps116
	Cg52–Pg1–Ps117	Cg52–Pg1–Ps118	Cg52–Pg1–Ps119	Cg52–Pg1–Ps120
	Cg52–Pg1–Ps121	Cg52–Pg1–Ps122	Cg52–Pg1–Ps123	Cg52–Pg1–Ps124
	Cg52–Pg1–Ps125	Cg52–Pg1–Ps126	Cg52–Pg1–Ps127	Cg52–Pg1–Ps128
	Cg52–Pg1–Ps129	Cg52–Pg1–Ps130	Cg52–Pg1–Ps131	Cg52–Pg1–Ps132
45	Cg52–Pg1–Ps133	Cg52–Pg1–Ps134	Cg52–Pg1–Ps135	Cg52–Pg1–Ps136
	Cg52–Pg1–Ps137	Cg52–Pg1–Ps138	Cg52–Pg1–Ps139	Cg52–Pg1–Ps140
	Cg52–Pg1–Ps141	Cg52–Pg1–Ps142	Cg52–Pg1–Ps143	Cg52–Pg1–Ps144
	Cg52–Pg1–Ps145	Cg52–Pg1–Ps146	Cg52–Pg1–Ps147	Cg52–Pg1–Ps148
	Cg52–Pg1–Ps149	Cg52–Pg1–Ps150	Cg52–Pg1–Ps151	Cg52–Pg1–Ps152
50	Cg52–Pg1–Ps153	Cg52–Pg1–Ps154	Cg52–Pg1–Ps155	Cg52–Pg1–Ps156
	Cg52–Pg1–Ps157	Cg52–Pg1–Ps158	Cg52–Pg1–Ps159	Cg52–Pg1–Ps160
	Cg52–Pg1–Ps161	Cg52–Pg1–Ps162	Cg52–Pg1–Ps163	Cg52–Pg1–Ps164

	Cg52–Pg1–Ps165	Cg52–Pg1–Ps166	Cg52–Pg1–Ps167	Cg52–Pg1–Ps168
	Cg52–Pg1–Ps169	Cg52–Pg1–Ps170	Cg52–Pg1–Ps171	Cg52–Pg1–Ps172
	Cg52–Pg1–Ps173	Cg52–Pg1–Ps174	Cg52–Pg1–Ps175	Cg52–Pg1–Ps176
	Cg52–Pg1–Ps177	Cg52–Pg1–Ps178	Cg52–Pg1–Ps179	Cg52–Pg1–Ps180
5	Cg52–Pg1–Ps181	Cg52–Pg1–Ps182	Cg52–Pg1–Ps183	Cg52–Pg1–Ps184
	Cg52–Pg1–Ps185	Cg52–Pg1–Ps186	Cg52–Pg1–Ps187	Cg52–Pg1–Ps188
	Cg52–Pg1–Ps189	Cg52–Pg1–Ps190	Cg52–Pg1–Ps191	Cg52–Pg1–Ps192
	Cg52–Pg1–Ps193	Cg52–Pg1–Ps194	Cg52–Pg1–Ps195	Cg52–Pg1–Ps196
	Cg52–Pg1–Ps197	Cg52–Pg1–Ps198	Cg52–Pg1–Ps199	Cg52–Pg1–Ps200
10	Cg52–Pg1–Ps201	Cg52–Pg1–Ps202	Cg52–Pg1–Ps203	Cg52–Pg1–Ps204
	Cg52–Pg1–Ps205	Cg52–Pg1–Ps206	Cg52–Pg1–Ps207	Cg52–Pg1–Ps208
	Cg52–Pg1–Ps209	Cg52–Pg1–Ps210	Cg52–Pg1–Ps211	Cg52–Pg1–Ps212
	Cg52–Pg1–Ps213	Cg52–Pg1–Ps214	Cg52–Pg1–Ps215	Cg52–Pg1–Ps216
	Cg52–Pg1–Ps217	Cg52–Pg1–Ps218	Cg52–Pg1–Ps219	Cg52–Pg1–Ps220
15	Cg52–Pg1–Ps221	Cg52–Pg1–Ps222	Cg52–Pg1–Ps223	Cg52–Pg1–Ps224
	Cg52–Pg1–Ps225	Cg52–Pg1–Ps226	Cg52–Pg1–Ps227	Cg52–Pg1–Ps228
	Cg52–Pg1–Ps229	Cg52–Pg1–Ps230	Cg52–Pg1–Ps231	Cg52–Pg1–Ps232
	Cg52–Pg1–Ps233	Cg52–Pg1–Ps234	Cg52–Pg1–Ps235	Cg52–Pg1–Ps236
	Cg52–Pg1–Ps237	Cg52–Pg1–Ps238	Cg52–Pg1–Ps239	Cg52–Pg1–Ps240
20	Cg52–Pg1–Ps241	Cg52–Pg1–Ps242	Cg52–Pg1–Ps243	
	Cg53–Pg1–Ps1	Cg53–Pg1–Ps2	Cg53–Pg1–Ps3	Cg53–Pg1–Ps4
	Cg53–Pg1–Ps5	Cg53–Pg1–Ps6	Cg53–Pg1–Ps7	Cg53–Pg1–Ps8
	Cg53–Pg1–Ps9	Cg53–Pg1–Ps10	Cg53–Pg1–Ps11	Cg53–Pg1–Ps12
25	Cg53–Pg1–Ps13	Cg53–Pg1–Ps14	Cg53–Pg1–Ps15	Cg53–Pg1–Ps16
	Cg53–Pg1–Ps17	Cg53–Pg1–Ps18	Cg53–Pg1–Ps19	Cg53–Pg1–Ps20
	Cg53–Pg1–Ps21	Cg53–Pg1–Ps22	Cg53–Pg1–Ps23	Cg53–Pg1–Ps24
	Cg53–Pg1–Ps25	Cg53–Pg1–Ps26	Cg53–Pg1–Ps27	Cg53–Pg1–Ps28
	Cg53–Pg1–Ps29	Cg53–Pg1–Ps30	Cg53–Pg1–Ps31	Cg53–Pg1–Ps32
30	Cg53–Pg1–Ps33	Cg53–Pg1–Ps34	Cg53–Pg1–Ps35	Cg53–Pg1–Ps36
	Cg53–Pg1–Ps37	Cg53–Pg1–Ps38	Cg53–Pg1–Ps39	Cg53–Pg1–Ps40
	Cg53–Pg1–Ps41	Cg53–Pg1–Ps42	Cg53–Pg1–Ps43	Cg53–Pg1–Ps44
	Cg53–Pg1–Ps45	Cg53–Pg1–Ps46	Cg53–Pg1–Ps47	Cg53–Pg1–Ps48
	Cg53–Pg1–Ps49	Cg53–Pg1–Ps50	Cg53–Pg1–Ps51	Cg53–Pg1–Ps52
35	Cg53–Pg1–Ps53	Cg53–Pg1–Ps54	Cg53–Pg1–Ps55	Cg53–Pg1–Ps56
	Cg53–Pg1–Ps57	Cg53–Pg1–Ps58	Cg53–Pg1–Ps59	Cg53–Pg1–Ps60
	Cg53–Pg1–Ps61	Cg53–Pg1–Ps62	Cg53–Pg1–Ps63	Cg53–Pg1–Ps64
	Cg53–Pg1–Ps65	Cg53–Pg1–Ps66	Cg53–Pg1–Ps67	Cg53–Pg1–Ps68
	Cg53–Pg1–Ps69	Cg53–Pg1–Ps70	Cg53–Pg1–Ps71	Cg53–Pg1–Ps72
40	Cg53–Pg1–Ps73	Cg53–Pg1–Ps74	Cg53–Pg1–Ps75	Cg53–Pg1–Ps76
	Cg53–Pg1–Ps77	Cg53–Pg1–Ps78	Cg53–Pg1–Ps79	Cg53–Pg1–Ps80
	Cg53–Pg1–Ps81	Cg53–Pg1–Ps82	Cg53–Pg1–Ps83	Cg53–Pg1–Ps84
	Cg53–Pg1–Ps85	Cg53–Pg1–Ps86	Cg53–Pg1–Ps87	Cg53–Pg1–Ps88
	Cg53–Pg1–Ps89	Cg53–Pg1–Ps90	Cg53–Pg1–Ps91	Cg53–Pg1–Ps92
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	Cg53–Pg1–Ps97	Cg53–Pg1–Ps98	Cg53–Pg1–Ps99	Cg53–Pg1–Ps100
	Cg53–Pg1–Ps101	Cg53–Pg1–Ps102	Cg53–Pg1–Ps103	Cg53–Pg1–Ps104
	Cg53–Pg1–Ps105	Cg53–Pg1–Ps106	Cg53–Pg1–Ps107	Cg53–Pg1–Ps108
	Cg53–Pg1–Ps109	Cg53–Pg1–Ps110	Cg53–Pg1–Ps111	Cg53–Pg1–Ps112
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	Cg53–Pg1–Ps117	Cg53–Pg1–Ps118	Cg53–Pg1–Ps119	Cg53–Pg1–Ps120
	Cg53–Pg1–Ps121	Cg53–Pg1–Ps122	Cg53–Pg1–Ps123	Cg53–Pg1–Ps124

	Cg53–Pg1–Ps125	Cg53–Pg1–Ps126	Cg53–Pg1–Ps127	Cg53–Pg1–Ps128
	Cg53–Pg1–Ps129	Cg53–Pg1–Ps130	Cg53–Pg1–Ps131	Cg53–Pg1–Ps132
	Cg53–Pg1–Ps133	Cg53–Pg1–Ps134	Cg53–Pg1–Ps135	Cg53–Pg1–Ps136
	Cg53–Pg1–Ps137	Cg53–Pg1–Ps138	Cg53–Pg1–Ps139	Cg53–Pg1–Ps140
5	Cg53–Pg1–Ps141	Cg53–Pg1–Ps142	Cg53–Pg1–Ps143	Cg53–Pg1–Ps144
	Cg53–Pg1–Ps145	Cg53–Pg1–Ps146	Cg53–Pg1–Ps147	Cg53–Pg1–Ps148
	Cg53–Pg1–Ps149	Cg53–Pg1–Ps150	Cg53–Pg1–Ps151	Cg53–Pg1–Ps152
	Cg53–Pg1–Ps153	Cg53–Pg1–Ps154	Cg53–Pg1–Ps155	Cg53–Pg1–Ps156
	Cg53–Pg1–Ps157	Cg53–Pg1–Ps158	Cg53–Pg1–Ps159	Cg53–Pg1–Ps160
10	Cg53–Pg1–Ps161	Cg53–Pg1–Ps162	Cg53–Pg1–Ps163	Cg53–Pg1–Ps164
	Cg53–Pg1–Ps165	Cg53–Pg1–Ps166	Cg53–Pg1–Ps167	Cg53–Pg1–Ps168
	Cg53–Pg1–Ps169	Cg53–Pg1–Ps170	Cg53–Pg1–Ps171	Cg53–Pg1–Ps172
	Cg53–Pg1–Ps173	Cg53–Pg1–Ps174	Cg53–Pg1–Ps175	Cg53–Pg1–Ps176
	Cg53–Pg1–Ps177	Cg53–Pg1–Ps178	Cg53–Pg1–Ps179	Cg53–Pg1–Ps180
15	Cg53–Pg1–Ps181	Cg53–Pg1–Ps182	Cg53–Pg1–Ps183	Cg53–Pg1–Ps184
	Cg53–Pg1–Ps185	Cg53–Pg1–Ps186	Cg53–Pg1–Ps187	Cg53–Pg1–Ps188
	Cg53–Pg1–Ps189	Cg53–Pg1–Ps190	Cg53–Pg1–Ps191	Cg53–Pg1–Ps192
	Cg53–Pg1–Ps193	Cg53–Pg1–Ps194	Cg53–Pg1–Ps195	Cg53–Pg1–Ps196
	Cg53–Pg1–Ps197	Cg53–Pg1–Ps198	Cg53–Pg1–Ps199	Cg53–Pg1–Ps200
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	Cg53–Pg1–Ps205	Cg53–Pg1–Ps206	Cg53–Pg1–Ps207	Cg53–Pg1–Ps208
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	Cg53–Pg1–Ps229	Cg53–Pg1–Ps230	Cg53–Pg1–Ps231	Cg53–Pg1–Ps232
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	Cg53–Pg1–Ps237	Cg53–Pg1–Ps238	Cg53–Pg1–Ps239	Cg53–Pg1–Ps240
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	Cg54–Pg1–Ps17	Cg54–Pg1–Ps18	Cg54–Pg1–Ps19	Cg54–Pg1–Ps20
	Cg54–Pg1–Ps21	Cg54–Pg1–Ps22	Cg54–Pg1–Ps23	Cg54–Pg1–Ps24
	Cg54–Pg1–Ps25	Cg54–Pg1–Ps26	Cg54–Pg1–Ps27	Cg54–Pg1–Ps28
	Cg54–Pg1–Ps29	Cg54–Pg1–Ps30	Cg54–Pg1–Ps31	Cg54–Pg1–Ps32
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	Cg54–Pg1–Ps37	Cg54–Pg1–Ps38	Cg54–Pg1–Ps39	Cg54–Pg1–Ps40
	Cg54–Pg1–Ps41	Cg54–Pg1–Ps42	Cg54–Pg1–Ps43	Cg54–Pg1–Ps44
	Cg54–Pg1–Ps45	Cg54–Pg1–Ps46	Cg54–Pg1–Ps47	Cg54–Pg1–Ps48
	Cg54–Pg1–Ps49	Cg54–Pg1–Ps50	Cg54–Pg1–Ps51	Cg54–Pg1–Ps52
45	Cg54–Pg1–Ps53	Cg54–Pg1–Ps54	Cg54–Pg1–Ps55	Cg54–Pg1–Ps56
	Cg54–Pg1–Ps57	Cg54–Pg1–Ps58	Cg54–Pg1–Ps59	Cg54–Pg1–Ps60
	Cg54–Pg1–Ps61	Cg54–Pg1–Ps62	Cg54–Pg1–Ps63	Cg54–Pg1–Ps64
	Cg54–Pg1–Ps65	Cg54–Pg1–Ps66	Cg54–Pg1–Ps67	Cg54–Pg1–Ps68
	Cg54–Pg1–Ps69	Cg54–Pg1–Ps70	Cg54–Pg1–Ps71	Cg54–Pg1–Ps72
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	Cg54–Pg1–Ps77	Cg54–Pg1–Ps78	Cg54–Pg1–Ps79	Cg54–Pg1–Ps80
	Cg54–Pg1–Ps81	Cg54–Pg1–Ps82	Cg54–Pg1–Ps83	Cg54–Pg1–Ps84

	Cg54–Pg1–Ps85	Cg54–Pg1–Ps86	Cg54–Pg1–Ps87	Cg54–Pg1–Ps88
	Cg54–Pg1–Ps89	Cg54–Pg1–Ps90	Cg54–Pg1–Ps91	Cg54–Pg1–Ps92
	Cg54–Pg1–Ps93	Cg54–Pg1–Ps94	Cg54–Pg1–Ps95	Cg54–Pg1–Ps96
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	Cg54–Pg1–Ps113	Cg54–Pg1–Ps114	Cg54–Pg1–Ps115	Cg54–Pg1–Ps116
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	Cg54–Pg1–Ps125	Cg54–Pg1–Ps126	Cg54–Pg1–Ps127	Cg54–Pg1–Ps128
	Cg54–Pg1–Ps129	Cg54–Pg1–Ps130	Cg54–Pg1–Ps131	Cg54–Pg1–Ps132
	Cg54–Pg1–Ps133	Cg54–Pg1–Ps134	Cg54–Pg1–Ps135	Cg54–Pg1–Ps136
	Cg54–Pg1–Ps137	Cg54–Pg1–Ps138	Cg54–Pg1–Ps139	Cg54–Pg1–Ps140
15	Cg54–Pg1–Ps141	Cg54–Pg1–Ps142	Cg54–Pg1–Ps143	Cg54–Pg1–Ps144
	Cg54–Pg1–Ps145	Cg54–Pg1–Ps146	Cg54–Pg1–Ps147	Cg54–Pg1–Ps148
	Cg54–Pg1–Ps149	Cg54–Pg1–Ps150	Cg54–Pg1–Ps151	Cg54–Pg1–Ps152
	Cg54–Pg1–Ps153	Cg54–Pg1–Ps154	Cg54–Pg1–Ps155	Cg54–Pg1–Ps156
	Cg54–Pg1–Ps157	Cg54–Pg1–Ps158	Cg54–Pg1–Ps159	Cg54–Pg1–Ps160
20	Cg54–Pg1–Ps161	Cg54–Pg1–Ps162	Cg54–Pg1–Ps163	Cg54–Pg1–Ps164
	Cg54–Pg1–Ps165	Cg54–Pg1–Ps166	Cg54–Pg1–Ps167	Cg54–Pg1–Ps168
	Cg54–Pg1–Ps169	Cg54–Pg1–Ps170	Cg54–Pg1–Ps171	Cg54–Pg1–Ps172
	Cg54–Pg1–Ps173	Cg54–Pg1–Ps174	Cg54–Pg1–Ps175	Cg54–Pg1–Ps176
	Cg54–Pg1–Ps177	Cg54–Pg1–Ps178	Cg54–Pg1–Ps179	Cg54–Pg1–Ps180
25	Cg54–Pg1–Ps181	Cg54–Pg1–Ps182	Cg54–Pg1–Ps183	Cg54–Pg1–Ps184
	Cg54–Pg1–Ps185	Cg54–Pg1–Ps186	Cg54–Pg1–Ps187	Cg54–Pg1–Ps188
	Cg54–Pg1–Ps189	Cg54–Pg1–Ps190	Cg54–Pg1–Ps191	Cg54–Pg1–Ps192
	Cg54–Pg1–Ps193	Cg54–Pg1–Ps194	Cg54–Pg1–Ps195	Cg54–Pg1–Ps196
	Cg54–Pg1–Ps197	Cg54–Pg1–Ps198	Cg54–Pg1–Ps199	Cg54–Pg1–Ps200
30	Cg54–Pg1–Ps201	Cg54–Pg1–Ps202	Cg54–Pg1–Ps203	Cg54–Pg1–Ps204
	Cg54–Pg1–Ps205	Cg54–Pg1–Ps206	Cg54–Pg1–Ps207	Cg54–Pg1–Ps208
	Cg54–Pg1–Ps209	Cg54–Pg1–Ps210	Cg54–Pg1–Ps211	Cg54–Pg1–Ps212
	Cg54–Pg1–Ps213	Cg54–Pg1–Ps214	Cg54–Pg1–Ps215	Cg54–Pg1–Ps216
	Cg54–Pg1–Ps217	Cg54–Pg1–Ps218	Cg54–Pg1–Ps219	Cg54–Pg1–Ps220
35	Cg54–Pg1–Ps221	Cg54–Pg1–Ps222	Cg54–Pg1–Ps223	Cg54–Pg1–Ps224
	Cg54–Pg1–Ps225	Cg54–Pg1–Ps226	Cg54–Pg1–Ps227	Cg54–Pg1–Ps228
	Cg54–Pg1–Ps229	Cg54–Pg1–Ps230	Cg54–Pg1–Ps231	Cg54–Pg1–Ps232
	Cg54–Pg1–Ps233	Cg54–Pg1–Ps234	Cg54–Pg1–Ps235	Cg54–Pg1–Ps236
	Cg54–Pg1–Ps237	Cg54–Pg1–Ps238	Cg54–Pg1–Ps239	Cg54–Pg1–Ps240
40	Cg54–Pg1–Ps241	Cg54–Pg1–Ps242	Cg54–Pg1–Ps243	

	Cg57–Pg1–Ps1	Cg57–Pg1–Ps2	Cg57–Pg1–Ps3	Cg57–Pg1–Ps4
	Cg57–Pg1–Ps5	Cg57–Pg1–Ps6	Cg57–Pg1–Ps7	Cg57–Pg1–Ps8
	Cg57–Pg1–Ps9	Cg57–Pg1–Ps10	Cg57–Pg1–Ps11	Cg57–Pg1–Ps12
45	Cg57–Pg1–Ps13	Cg57–Pg1–Ps14	Cg57–Pg1–Ps15	Cg57–Pg1–Ps16
	Cg57–Pg1–Ps17	Cg57–Pg1–Ps18	Cg57–Pg1–Ps19	Cg57–Pg1–Ps20
	Cg57–Pg1–Ps21	Cg57–Pg1–Ps22	Cg57–Pg1–Ps23	Cg57–Pg1–Ps24
	Cg57–Pg1–Ps25	Cg57–Pg1–Ps26	Cg57–Pg1–Ps27	Cg57–Pg1–Ps28
	Cg57–Pg1–Ps29	Cg57–Pg1–Ps30	Cg57–Pg1–Ps31	Cg57–Pg1–Ps32
50	Cg57–Pg1–Ps33	Cg57–Pg1–Ps34	Cg57–Pg1–Ps35	Cg57–Pg1–Ps36
	Cg57–Pg1–Ps37	Cg57–Pg1–Ps38	Cg57–Pg1–Ps39	Cg57–Pg1–Ps40
	Cg57–Pg1–Ps41	Cg57–Pg1–Ps42	Cg57–Pg1–Ps43	Cg57–Pg1–Ps44

	Cg57–Pg1–Ps45	Cg57–Pg1–Ps46	Cg57–Pg1–Ps47	Cg57–Pg1–Ps48
	Cg57–Pg1–Ps49	Cg57–Pg1–Ps50	Cg57–Pg1–Ps51	Cg57–Pg1–Ps52
	Cg57–Pg1–Ps53	Cg57–Pg1–Ps54	Cg57–Pg1–Ps55	Cg57–Pg1–Ps56
	Cg57–Pg1–Ps57	Cg57–Pg1–Ps58	Cg57–Pg1–Ps59	Cg57–Pg1–Ps60
5	Cg57–Pg1–Ps61	Cg57–Pg1–Ps62	Cg57–Pg1–Ps63	Cg57–Pg1–Ps64
	Cg57–Pg1–Ps65	Cg57–Pg1–Ps66	Cg57–Pg1–Ps67	Cg57–Pg1–Ps68
	Cg57–Pg1–Ps69	Cg57–Pg1–Ps70	Cg57–Pg1–Ps71	Cg57–Pg1–Ps72
	Cg57–Pg1–Ps73	Cg57–Pg1–Ps74	Cg57–Pg1–Ps75	Cg57–Pg1–Ps76
	Cg57–Pg1–Ps77	Cg57–Pg1–Ps78	Cg57–Pg1–Ps79	Cg57–Pg1–Ps80
10	Cg57–Pg1–Ps81	Cg57–Pg1–Ps82	Cg57–Pg1–Ps83	Cg57–Pg1–Ps84
	Cg57–Pg1–Ps85	Cg57–Pg1–Ps86	Cg57–Pg1–Ps87	Cg57–Pg1–Ps88
	Cg57–Pg1–Ps89	Cg57–Pg1–Ps90	Cg57–Pg1–Ps91	Cg57–Pg1–Ps92
	Cg57–Pg1–Ps93	Cg57–Pg1–Ps94	Cg57–Pg1–Ps95	Cg57–Pg1–Ps96
	Cg57–Pg1–Ps97	Cg57–Pg1–Ps98	Cg57–Pg1–Ps99	Cg57–Pg1–Ps100
15	Cg57–Pg1–Ps101	Cg57–Pg1–Ps102	Cg57–Pg1–Ps103	Cg57–Pg1–Ps104
	Cg57–Pg1–Ps105	Cg57–Pg1–Ps106	Cg57–Pg1–Ps107	Cg57–Pg1–Ps108
	Cg57–Pg1–Ps109	Cg57–Pg1–Ps110	Cg57–Pg1–Ps111	Cg57–Pg1–Ps112
	Cg57–Pg1–Ps113	Cg57–Pg1–Ps114	Cg57–Pg1–Ps115	Cg57–Pg1–Ps116
	Cg57–Pg1–Ps117	Cg57–Pg1–Ps118	Cg57–Pg1–Ps119	Cg57–Pg1–Ps120
20	Cg57–Pg1–Ps121	Cg57–Pg1–Ps122	Cg57–Pg1–Ps123	Cg57–Pg1–Ps124
	Cg57–Pg1–Ps125	Cg57–Pg1–Ps126	Cg57–Pg1–Ps127	Cg57–Pg1–Ps128
	Cg57–Pg1–Ps129	Cg57–Pg1–Ps130	Cg57–Pg1–Ps131	Cg57–Pg1–Ps132
	Cg57–Pg1–Ps133	Cg57–Pg1–Ps134	Cg57–Pg1–Ps135	Cg57–Pg1–Ps136
	Cg57–Pg1–Ps137	Cg57–Pg1–Ps138	Cg57–Pg1–Ps139	Cg57–Pg1–Ps140
25	Cg57–Pg1–Ps141	Cg57–Pg1–Ps142	Cg57–Pg1–Ps143	Cg57–Pg1–Ps144
	Cg57–Pg1–Ps145	Cg57–Pg1–Ps146	Cg57–Pg1–Ps147	Cg57–Pg1–Ps148
	Cg57–Pg1–Ps149	Cg57–Pg1–Ps150	Cg57–Pg1–Ps151	Cg57–Pg1–Ps152
	Cg57–Pg1–Ps153	Cg57–Pg1–Ps154	Cg57–Pg1–Ps155	Cg57–Pg1–Ps156
	Cg57–Pg1–Ps157	Cg57–Pg1–Ps158	Cg57–Pg1–Ps159	Cg57–Pg1–Ps160
30	Cg57–Pg1–Ps161	Cg57–Pg1–Ps162	Cg57–Pg1–Ps163	Cg57–Pg1–Ps164
	Cg57–Pg1–Ps165	Cg57–Pg1–Ps166	Cg57–Pg1–Ps167	Cg57–Pg1–Ps168
	Cg57–Pg1–Ps169	Cg57–Pg1–Ps170	Cg57–Pg1–Ps171	Cg57–Pg1–Ps172
	Cg57–Pg1–Ps173	Cg57–Pg1–Ps174	Cg57–Pg1–Ps175	Cg57–Pg1–Ps176
	Cg57–Pg1–Ps177	Cg57–Pg1–Ps178	Cg57–Pg1–Ps179	Cg57–Pg1–Ps180
35	Cg57–Pg1–Ps181	Cg57–Pg1–Ps182	Cg57–Pg1–Ps183	Cg57–Pg1–Ps184
	Cg57–Pg1–Ps185	Cg57–Pg1–Ps186	Cg57–Pg1–Ps187	Cg57–Pg1–Ps188
	Cg57–Pg1–Ps189	Cg57–Pg1–Ps190	Cg57–Pg1–Ps191	Cg57–Pg1–Ps192
	Cg57–Pg1–Ps193	Cg57–Pg1–Ps194	Cg57–Pg1–Ps195	Cg57–Pg1–Ps196
	Cg57–Pg1–Ps197	Cg57–Pg1–Ps198	Cg57–Pg1–Ps199	Cg57–Pg1–Ps200
40	Cg57–Pg1–Ps201	Cg57–Pg1–Ps202	Cg57–Pg1–Ps203	Cg57–Pg1–Ps204
	Cg57–Pg1–Ps205	Cg57–Pg1–Ps206	Cg57–Pg1–Ps207	Cg57–Pg1–Ps208
	Cg57–Pg1–Ps209	Cg57–Pg1–Ps210	Cg57–Pg1–Ps211	Cg57–Pg1–Ps212
	Cg57–Pg1–Ps213	Cg57–Pg1–Ps214	Cg57–Pg1–Ps215	Cg57–Pg1–Ps216
	Cg57–Pg1–Ps217	Cg57–Pg1–Ps218	Cg57–Pg1–Ps219	Cg57–Pg1–Ps220
45	Cg57–Pg1–Ps221	Cg57–Pg1–Ps222	Cg57–Pg1–Ps223	Cg57–Pg1–Ps224
	Cg57–Pg1–Ps225	Cg57–Pg1–Ps226	Cg57–Pg1–Ps227	Cg57–Pg1–Ps228
	Cg57–Pg1–Ps229	Cg57–Pg1–Ps230	Cg57–Pg1–Ps231	Cg57–Pg1–Ps232
	Cg57–Pg1–Ps233	Cg57–Pg1–Ps234	Cg57–Pg1–Ps235	Cg57–Pg1–Ps236
	Cg57–Pg1–Ps237	Cg57–Pg1–Ps238	Cg57–Pg1–Ps239	Cg57–Pg1–Ps240
50	Cg57–Pg1–Ps241	Cg57–Pg1–Ps242	Cg57–Pg1–Ps243	
	Cg60–Pg1–Ps1	Cg60–Pg1–Ps2	Cg60–Pg1–Ps3	Cg60–Pg1–Ps4

	Cg60–Pg1–Ps5	Cg60–Pg1–Ps6	Cg60–Pg1–Ps7	Cg60–Pg1–Ps8
	Cg60–Pg1–Ps9	Cg60–Pg1–Ps10	Cg60–Pg1–Ps11	Cg60–Pg1–Ps12
	Cg60–Pg1–Ps13	Cg60–Pg1–Ps14	Cg60–Pg1–Ps15	Cg60–Pg1–Ps16
	Cg60–Pg1–Ps17	Cg60–Pg1–Ps18	Cg60–Pg1–Ps19	Cg60–Pg1–Ps20
5	Cg60–Pg1–Ps21	Cg60–Pg1–Ps22	Cg60–Pg1–Ps23	Cg60–Pg1–Ps24
	Cg60–Pg1–Ps25	Cg60–Pg1–Ps26	Cg60–Pg1–Ps27	Cg60–Pg1–Ps28
	Cg60–Pg1–Ps29	Cg60–Pg1–Ps30	Cg60–Pg1–Ps31	Cg60–Pg1–Ps32
	Cg60–Pg1–Ps33	Cg60–Pg1–Ps34	Cg60–Pg1–Ps35	Cg60–Pg1–Ps36
	Cg60–Pg1–Ps37	Cg60–Pg1–Ps38	Cg60–Pg1–Ps39	Cg60–Pg1–Ps40
10	Cg60–Pg1–Ps41	Cg60–Pg1–Ps42	Cg60–Pg1–Ps43	Cg60–Pg1–Ps44
	Cg60–Pg1–Ps45	Cg60–Pg1–Ps46	Cg60–Pg1–Ps47	Cg60–Pg1–Ps48
	Cg60–Pg1–Ps49	Cg60–Pg1–Ps50	Cg60–Pg1–Ps51	Cg60–Pg1–Ps52
	Cg60–Pg1–Ps53	Cg60–Pg1–Ps54	Cg60–Pg1–Ps55	Cg60–Pg1–Ps56
	Cg60–Pg1–Ps57	Cg60–Pg1–Ps58	Cg60–Pg1–Ps59	Cg60–Pg1–Ps60
15	Cg60–Pg1–Ps61	Cg60–Pg1–Ps62	Cg60–Pg1–Ps63	Cg60–Pg1–Ps64
	Cg60–Pg1–Ps65	Cg60–Pg1–Ps66	Cg60–Pg1–Ps67	Cg60–Pg1–Ps68
	Cg60–Pg1–Ps69	Cg60–Pg1–Ps70	Cg60–Pg1–Ps71	Cg60–Pg1–Ps72
	Cg60–Pg1–Ps73	Cg60–Pg1–Ps74	Cg60–Pg1–Ps75	Cg60–Pg1–Ps76
	Cg60–Pg1–Ps77	Cg60–Pg1–Ps78	Cg60–Pg1–Ps79	Cg60–Pg1–Ps80
20	Cg60–Pg1–Ps81	Cg60–Pg1–Ps82	Cg60–Pg1–Ps83	Cg60–Pg1–Ps84
	Cg60–Pg1–Ps85	Cg60–Pg1–Ps86	Cg60–Pg1–Ps87	Cg60–Pg1–Ps88
	Cg60–Pg1–Ps89	Cg60–Pg1–Ps90	Cg60–Pg1–Ps91	Cg60–Pg1–Ps92
	Cg60–Pg1–Ps93	Cg60–Pg1–Ps94	Cg60–Pg1–Ps95	Cg60–Pg1–Ps96
	Cg60–Pg1–Ps97	Cg60–Pg1–Ps98	Cg60–Pg1–Ps99	Cg60–Pg1–Ps100
25	Cg60–Pg1–Ps101	Cg60–Pg1–Ps102	Cg60–Pg1–Ps103	Cg60–Pg1–Ps104
	Cg60–Pg1–Ps105	Cg60–Pg1–Ps106	Cg60–Pg1–Ps107	Cg60–Pg1–Ps108
	Cg60–Pg1–Ps109	Cg60–Pg1–Ps110	Cg60–Pg1–Ps111	Cg60–Pg1–Ps112
	Cg60–Pg1–Ps113	Cg60–Pg1–Ps114	Cg60–Pg1–Ps115	Cg60–Pg1–Ps116
	Cg60–Pg1–Ps117	Cg60–Pg1–Ps118	Cg60–Pg1–Ps119	Cg60–Pg1–Ps120
30	Cg60–Pg1–Ps121	Cg60–Pg1–Ps122	Cg60–Pg1–Ps123	Cg60–Pg1–Ps124
	Cg60–Pg1–Ps125	Cg60–Pg1–Ps126	Cg60–Pg1–Ps127	Cg60–Pg1–Ps128
	Cg60–Pg1–Ps129	Cg60–Pg1–Ps130	Cg60–Pg1–Ps131	Cg60–Pg1–Ps132
	Cg60–Pg1–Ps133	Cg60–Pg1–Ps134	Cg60–Pg1–Ps135	Cg60–Pg1–Ps136
	Cg60–Pg1–Ps137	Cg60–Pg1–Ps138	Cg60–Pg1–Ps139	Cg60–Pg1–Ps140
35	Cg60–Pg1–Ps141	Cg60–Pg1–Ps142	Cg60–Pg1–Ps143	Cg60–Pg1–Ps144
	Cg60–Pg1–Ps145	Cg60–Pg1–Ps146	Cg60–Pg1–Ps147	Cg60–Pg1–Ps148
	Cg60–Pg1–Ps149	Cg60–Pg1–Ps150	Cg60–Pg1–Ps151	Cg60–Pg1–Ps152
	Cg60–Pg1–Ps153	Cg60–Pg1–Ps154	Cg60–Pg1–Ps155	Cg60–Pg1–Ps156
	Cg60–Pg1–Ps157	Cg60–Pg1–Ps158	Cg60–Pg1–Ps159	Cg60–Pg1–Ps160
40	Cg60–Pg1–Ps161	Cg60–Pg1–Ps162	Cg60–Pg1–Ps163	Cg60–Pg1–Ps164
	Cg60–Pg1–Ps165	Cg60–Pg1–Ps166	Cg60–Pg1–Ps167	Cg60–Pg1–Ps168
	Cg60–Pg1–Ps169	Cg60–Pg1–Ps170	Cg60–Pg1–Ps171	Cg60–Pg1–Ps172
	Cg60–Pg1–Ps173	Cg60–Pg1–Ps174	Cg60–Pg1–Ps175	Cg60–Pg1–Ps176
	Cg60–Pg1–Ps177	Cg60–Pg1–Ps178	Cg60–Pg1–Ps179	Cg60–Pg1–Ps180
45	Cg60–Pg1–Ps181	Cg60–Pg1–Ps182	Cg60–Pg1–Ps183	Cg60–Pg1–Ps184
	Cg60–Pg1–Ps185	Cg60–Pg1–Ps186	Cg60–Pg1–Ps187	Cg60–Pg1–Ps188
	Cg60–Pg1–Ps189	Cg60–Pg1–Ps190	Cg60–Pg1–Ps191	Cg60–Pg1–Ps192
	Cg60–Pg1–Ps193	Cg60–Pg1–Ps194	Cg60–Pg1–Ps195	Cg60–Pg1–Ps196
	Cg60–Pg1–Ps197	Cg60–Pg1–Ps198	Cg60–Pg1–Ps199	Cg60–Pg1–Ps200
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	Cg60–Pg1–Ps205	Cg60–Pg1–Ps206	Cg60–Pg1–Ps207	Cg60–Pg1–Ps208
	Cg60–Pg1–Ps209	Cg60–Pg1–Ps210	Cg60–Pg1–Ps211	Cg60–Pg1–Ps212

	Cg60–Pg1–Ps213	Cg60–Pg1–Ps214	Cg60–Pg1–Ps215	Cg60–Pg1–Ps216
	Cg60–Pg1–Ps217	Cg60–Pg1–Ps218	Cg60–Pg1–Ps219	Cg60–Pg1–Ps220
	Cg60–Pg1–Ps221	Cg60–Pg1–Ps222	Cg60–Pg1–Ps223	Cg60–Pg1–Ps224
	Cg60–Pg1–Ps225	Cg60–Pg1–Ps226	Cg60–Pg1–Ps227	Cg60–Pg1–Ps228
5	Cg60–Pg1–Ps229	Cg60–Pg1–Ps230	Cg60–Pg1–Ps231	Cg60–Pg1–Ps232
	Cg60–Pg1–Ps233	Cg60–Pg1–Ps234	Cg60–Pg1–Ps235	Cg60–Pg1–Ps236
	Cg60–Pg1–Ps237	Cg60–Pg1–Ps238	Cg60–Pg1–Ps239	Cg60–Pg1–Ps240
	Cg60–Pg1–Ps241	Cg60–Pg1–Ps242	Cg60–Pg1–Ps243	
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	Cg61–Pg1–Ps5	Cg61–Pg1–Ps6	Cg61–Pg1–Ps7	Cg61–Pg1–Ps8
	Cg61–Pg1–Ps9	Cg61–Pg1–Ps10	Cg61–Pg1–Ps11	Cg61–Pg1–Ps12
	Cg61–Pg1–Ps13	Cg61–Pg1–Ps14	Cg61–Pg1–Ps15	Cg61–Pg1–Ps16
	Cg61–Pg1–Ps17	Cg61–Pg1–Ps18	Cg61–Pg1–Ps19	Cg61–Pg1–Ps20
15	Cg61–Pg1–Ps21	Cg61–Pg1–Ps22	Cg61–Pg1–Ps23	Cg61–Pg1–Ps24
	Cg61–Pg1–Ps25	Cg61–Pg1–Ps26	Cg61–Pg1–Ps27	Cg61–Pg1–Ps28
	Cg61–Pg1–Ps29	Cg61–Pg1–Ps30	Cg61–Pg1–Ps31	Cg61–Pg1–Ps32
	Cg61–Pg1–Ps33	Cg61–Pg1–Ps34	Cg61–Pg1–Ps35	Cg61–Pg1–Ps36
	Cg61–Pg1–Ps37	Cg61–Pg1–Ps38	Cg61–Pg1–Ps39	Cg61–Pg1–Ps40
20	Cg61–Pg1–Ps41	Cg61–Pg1–Ps42	Cg61–Pg1–Ps43	Cg61–Pg1–Ps44
	Cg61–Pg1–Ps45	Cg61–Pg1–Ps46	Cg61–Pg1–Ps47	Cg61–Pg1–Ps48
	Cg61–Pg1–Ps49	Cg61–Pg1–Ps50	Cg61–Pg1–Ps51	Cg61–Pg1–Ps52
	Cg61–Pg1–Ps53	Cg61–Pg1–Ps54	Cg61–Pg1–Ps55	Cg61–Pg1–Ps56
	Cg61–Pg1–Ps57	Cg61–Pg1–Ps58	Cg61–Pg1–Ps59	Cg61–Pg1–Ps60
25	Cg61–Pg1–Ps61	Cg61–Pg1–Ps62	Cg61–Pg1–Ps63	Cg61–Pg1–Ps64
	Cg61–Pg1–Ps65	Cg61–Pg1–Ps66	Cg61–Pg1–Ps67	Cg61–Pg1–Ps68
	Cg61–Pg1–Ps69	Cg61–Pg1–Ps70	Cg61–Pg1–Ps71	Cg61–Pg1–Ps72
	Cg61–Pg1–Ps73	Cg61–Pg1–Ps74	Cg61–Pg1–Ps75	Cg61–Pg1–Ps76
	Cg61–Pg1–Ps77	Cg61–Pg1–Ps78	Cg61–Pg1–Ps79	Cg61–Pg1–Ps80
30	Cg61–Pg1–Ps81	Cg61–Pg1–Ps82	Cg61–Pg1–Ps83	Cg61–Pg1–Ps84
	Cg61–Pg1–Ps85	Cg61–Pg1–Ps86	Cg61–Pg1–Ps87	Cg61–Pg1–Ps88
	Cg61–Pg1–Ps89	Cg61–Pg1–Ps90	Cg61–Pg1–Ps91	Cg61–Pg1–Ps92
	Cg61–Pg1–Ps93	Cg61–Pg1–Ps94	Cg61–Pg1–Ps95	Cg61–Pg1–Ps96
	Cg61–Pg1–Ps97	Cg61–Pg1–Ps98	Cg61–Pg1–Ps99	Cg61–Pg1–Ps100
35	Cg61–Pg1–Ps101	Cg61–Pg1–Ps102	Cg61–Pg1–Ps103	Cg61–Pg1–Ps104
	Cg61–Pg1–Ps105	Cg61–Pg1–Ps106	Cg61–Pg1–Ps107	Cg61–Pg1–Ps108
	Cg61–Pg1–Ps109	Cg61–Pg1–Ps110	Cg61–Pg1–Ps111	Cg61–Pg1–Ps112
	Cg61–Pg1–Ps113	Cg61–Pg1–Ps114	Cg61–Pg1–Ps115	Cg61–Pg1–Ps116
	Cg61–Pg1–Ps117	Cg61–Pg1–Ps118	Cg61–Pg1–Ps119	Cg61–Pg1–Ps120
40	Cg61–Pg1–Ps121	Cg61–Pg1–Ps122	Cg61–Pg1–Ps123	Cg61–Pg1–Ps124
	Cg61–Pg1–Ps125	Cg61–Pg1–Ps126	Cg61–Pg1–Ps127	Cg61–Pg1–Ps128
	Cg61–Pg1–Ps129	Cg61–Pg1–Ps130	Cg61–Pg1–Ps131	Cg61–Pg1–Ps132
	Cg61–Pg1–Ps133	Cg61–Pg1–Ps134	Cg61–Pg1–Ps135	Cg61–Pg1–Ps136
	Cg61–Pg1–Ps137	Cg61–Pg1–Ps138	Cg61–Pg1–Ps139	Cg61–Pg1–Ps140
45	Cg61–Pg1–Ps141	Cg61–Pg1–Ps142	Cg61–Pg1–Ps143	Cg61–Pg1–Ps144
	Cg61–Pg1–Ps145	Cg61–Pg1–Ps146	Cg61–Pg1–Ps147	Cg61–Pg1–Ps148
	Cg61–Pg1–Ps149	Cg61–Pg1–Ps150	Cg61–Pg1–Ps151	Cg61–Pg1–Ps152
	Cg61–Pg1–Ps153	Cg61–Pg1–Ps154	Cg61–Pg1–Ps155	Cg61–Pg1–Ps156
	Cg61–Pg1–Ps157	Cg61–Pg1–Ps158	Cg61–Pg1–Ps159	Cg61–Pg1–Ps160
50	Cg61–Pg1–Ps161	Cg61–Pg1–Ps162	Cg61–Pg1–Ps163	Cg61–Pg1–Ps164
	Cg61–Pg1–Ps165	Cg61–Pg1–Ps166	Cg61–Pg1–Ps167	Cg61–Pg1–Ps168
	Cg61–Pg1–Ps169	Cg61–Pg1–Ps170	Cg61–Pg1–Ps171	Cg61–Pg1–Ps172

Cg61–Pg1–Ps173	Cg61–Pg1–Ps174	Cg61–Pg1–Ps175	Cg61–Pg1–Ps176
Cg61–Pg1–Ps177	Cg61–Pg1–Ps178	Cg61–Pg1–Ps179	Cg61–Pg1–Ps180
Cg61–Pg1–Ps181	Cg61–Pg1–Ps182	Cg61–Pg1–Ps183	Cg61–Pg1–Ps184
Cg61–Pg1–Ps185	Cg61–Pg1–Ps186	Cg61–Pg1–Ps187	Cg61–Pg1–Ps188
Cg61–Pg1–Ps189	Cg61–Pg1–Ps190	Cg61–Pg1–Ps191	Cg61–Pg1–Ps192
Cg61–Pg1–Ps193	Cg61–Pg1–Ps194	Cg61–Pg1–Ps195	Cg61–Pg1–Ps196
Cg61–Pg1–Ps197	Cg61–Pg1–Ps198	Cg61–Pg1–Ps199	Cg61–Pg1–Ps200
Cg61–Pg1–Ps201	Cg61–Pg1–Ps202	Cg61–Pg1–Ps203	Cg61–Pg1–Ps204
Cg61–Pg1–Ps205	Cg61–Pg1–Ps206	Cg61–Pg1–Ps207	Cg61–Pg1–Ps208
Cg61–Pg1–Ps209	Cg61–Pg1–Ps210	Cg61–Pg1–Ps211	Cg61–Pg1–Ps212
Cg61–Pg1–Ps213	Cg61–Pg1–Ps214	Cg61–Pg1–Ps215	Cg61–Pg1–Ps216
Cg61–Pg1–Ps217	Cg61–Pg1–Ps218	Cg61–Pg1–Ps219	Cg61–Pg1–Ps220
Cg61–Pg1–Ps221	Cg61–Pg1–Ps222	Cg61–Pg1–Ps223	Cg61–Pg1–Ps224
Cg61–Pg1–Ps225	Cg61–Pg1–Ps226	Cg61–Pg1–Ps227	Cg61–Pg1–Ps228
Cg61–Pg1–Ps229	Cg61–Pg1–Ps230	Cg61–Pg1–Ps231	Cg61–Pg1–Ps232
Cg61–Pg1–Ps233	Cg61–Pg1–Ps234	Cg61–Pg1–Ps235	Cg61–Pg1–Ps236
Cg61–Pg1–Ps237	Cg61–Pg1–Ps238	Cg61–Pg1–Ps239	Cg61–Pg1–Ps240
Cg61–Pg1–Ps241	Cg61–Pg1–Ps242	Cg61–Pg1–Ps243	

Cg62–Pg1–Ps1	Cg62–Pg1–Ps2	Cg62–Pg1–Ps3	Cg62–Pg1–Ps4
Cg62–Pg1–Ps5	Cg62–Pg1–Ps6	Cg62–Pg1–Ps7	Cg62–Pg1–Ps8
Cg62–Pg1–Ps9	Cg62–Pg1–Ps10	Cg62–Pg1–Ps11	Cg62–Pg1–Ps12
Cg62–Pg1–Ps13	Cg62–Pg1–Ps14	Cg62–Pg1–Ps15	Cg62–Pg1–Ps16
Cg62–Pg1–Ps17	Cg62–Pg1–Ps18	Cg62–Pg1–Ps19	Cg62–Pg1–Ps20
Cg62–Pg1–Ps21	Cg62–Pg1–Ps22	Cg62–Pg1–Ps23	Cg62–Pg1–Ps24
Cg62–Pg1–Ps25	Cg62–Pg1–Ps26	Cg62–Pg1–Ps27	Cg62–Pg1–Ps28
Cg62–Pg1–Ps29	Cg62–Pg1–Ps30	Cg62–Pg1–Ps31	Cg62–Pg1–Ps32
Cg62–Pg1–Ps33	Cg62–Pg1–Ps34	Cg62–Pg1–Ps35	Cg62–Pg1–Ps36
Cg62–Pg1–Ps37	Cg62–Pg1–Ps38	Cg62–Pg1–Ps39	Cg62–Pg1–Ps40
Cg62–Pg1–Ps41	Cg62–Pg1–Ps42	Cg62–Pg1–Ps43	Cg62–Pg1–Ps44
Cg62–Pg1–Ps45	Cg62–Pg1–Ps46	Cg62–Pg1–Ps47	Cg62–Pg1–Ps48
Cg62–Pg1–Ps49	Cg62–Pg1–Ps50	Cg62–Pg1–Ps51	Cg62–Pg1–Ps52
Cg62–Pg1–Ps53	Cg62–Pg1–Ps54	Cg62–Pg1–Ps55	Cg62–Pg1–Ps56
Cg62–Pg1–Ps57	Cg62–Pg1–Ps58	Cg62–Pg1–Ps59	Cg62–Pg1–Ps60
Cg62–Pg1–Ps61	Cg62–Pg1–Ps62	Cg62–Pg1–Ps63	Cg62–Pg1–Ps64
Cg62–Pg1–Ps65	Cg62–Pg1–Ps66	Cg62–Pg1–Ps67	Cg62–Pg1–Ps68
Cg62–Pg1–Ps69	Cg62–Pg1–Ps70	Cg62–Pg1–Ps71	Cg62–Pg1–Ps72
Cg62–Pg1–Ps73	Cg62–Pg1–Ps74	Cg62–Pg1–Ps75	Cg62–Pg1–Ps76
Cg62–Pg1–Ps77	Cg62–Pg1–Ps78	Cg62–Pg1–Ps79	Cg62–Pg1–Ps80
Cg62–Pg1–Ps81	Cg62–Pg1–Ps82	Cg62–Pg1–Ps83	Cg62–Pg1–Ps84
Cg62–Pg1–Ps85	Cg62–Pg1–Ps86	Cg62–Pg1–Ps87	Cg62–Pg1–Ps88
Cg62–Pg1–Ps89	Cg62–Pg1–Ps90	Cg62–Pg1–Ps91	Cg62–Pg1–Ps92
Cg62–Pg1–Ps93	Cg62–Pg1–Ps94	Cg62–Pg1–Ps95	Cg62–Pg1–Ps96
Cg62–Pg1–Ps97	Cg62–Pg1–Ps98	Cg62–Pg1–Ps99	Cg62–Pg1–Ps100
Cg62–Pg1–Ps101	Cg62–Pg1–Ps102	Cg62–Pg1–Ps103	Cg62–Pg1–Ps104
Cg62–Pg1–Ps105	Cg62–Pg1–Ps106	Cg62–Pg1–Ps107	Cg62–Pg1–Ps108
Cg62–Pg1–Ps109	Cg62–Pg1–Ps110	Cg62–Pg1–Ps111	Cg62–Pg1–Ps112
Cg62–Pg1–Ps113	Cg62–Pg1–Ps114	Cg62–Pg1–Ps115	Cg62–Pg1–Ps116
Cg62–Pg1–Ps117	Cg62–Pg1–Ps118	Cg62–Pg1–Ps119	Cg62–Pg1–Ps120
Cg62–Pg1–Ps121	Cg62–Pg1–Ps122	Cg62–Pg1–Ps123	Cg62–Pg1–Ps124
Cg62–Pg1–Ps125	Cg62–Pg1–Ps126	Cg62–Pg1–Ps127	Cg62–Pg1–Ps128
Cg62–Pg1–Ps129	Cg62–Pg1–Ps130	Cg62–Pg1–Ps131	Cg62–Pg1–Ps132

	Cg62–Pg1–Ps133	Cg62–Pg1–Ps134	Cg62–Pg1–Ps135	Cg62–Pg1–Ps136
	Cg62–Pg1–Ps137	Cg62–Pg1–Ps138	Cg62–Pg1–Ps139	Cg62–Pg1–Ps140
	Cg62–Pg1–Ps141	Cg62–Pg1–Ps142	Cg62–Pg1–Ps143	Cg62–Pg1–Ps144
	Cg62–Pg1–Ps145	Cg62–Pg1–Ps146	Cg62–Pg1–Ps147	Cg62–Pg1–Ps148
5	Cg62–Pg1–Ps149	Cg62–Pg1–Ps150	Cg62–Pg1–Ps151	Cg62–Pg1–Ps152
	Cg62–Pg1–Ps153	Cg62–Pg1–Ps154	Cg62–Pg1–Ps155	Cg62–Pg1–Ps156
	Cg62–Pg1–Ps157	Cg62–Pg1–Ps158	Cg62–Pg1–Ps159	Cg62–Pg1–Ps160
	Cg62–Pg1–Ps161	Cg62–Pg1–Ps162	Cg62–Pg1–Ps163	Cg62–Pg1–Ps164
	Cg62–Pg1–Ps165	Cg62–Pg1–Ps166	Cg62–Pg1–Ps167	Cg62–Pg1–Ps168
10	Cg62–Pg1–Ps169	Cg62–Pg1–Ps170	Cg62–Pg1–Ps171	Cg62–Pg1–Ps172
	Cg62–Pg1–Ps173	Cg62–Pg1–Ps174	Cg62–Pg1–Ps175	Cg62–Pg1–Ps176
	Cg62–Pg1–Ps177	Cg62–Pg1–Ps178	Cg62–Pg1–Ps179	Cg62–Pg1–Ps180
	Cg62–Pg1–Ps181	Cg62–Pg1–Ps182	Cg62–Pg1–Ps183	Cg62–Pg1–Ps184
	Cg62–Pg1–Ps185	Cg62–Pg1–Ps186	Cg62–Pg1–Ps187	Cg62–Pg1–Ps188
15	Cg62–Pg1–Ps189	Cg62–Pg1–Ps190	Cg62–Pg1–Ps191	Cg62–Pg1–Ps192
	Cg62–Pg1–Ps193	Cg62–Pg1–Ps194	Cg62–Pg1–Ps195	Cg62–Pg1–Ps196
	Cg62–Pg1–Ps197	Cg62–Pg1–Ps198	Cg62–Pg1–Ps199	Cg62–Pg1–Ps200
	Cg62–Pg1–Ps201	Cg62–Pg1–Ps202	Cg62–Pg1–Ps203	Cg62–Pg1–Ps204
	Cg62–Pg1–Ps205	Cg62–Pg1–Ps206	Cg62–Pg1–Ps207	Cg62–Pg1–Ps208
20	Cg62–Pg1–Ps209	Cg62–Pg1–Ps210	Cg62–Pg1–Ps211	Cg62–Pg1–Ps212
	Cg62–Pg1–Ps213	Cg62–Pg1–Ps214	Cg62–Pg1–Ps215	Cg62–Pg1–Ps216
	Cg62–Pg1–Ps217	Cg62–Pg1–Ps218	Cg62–Pg1–Ps219	Cg62–Pg1–Ps220
	Cg62–Pg1–Ps221	Cg62–Pg1–Ps222	Cg62–Pg1–Ps223	Cg62–Pg1–Ps224
	Cg62–Pg1–Ps225	Cg62–Pg1–Ps226	Cg62–Pg1–Ps227	Cg62–Pg1–Ps228
25	Cg62–Pg1–Ps229	Cg62–Pg1–Ps230	Cg62–Pg1–Ps231	Cg62–Pg1–Ps232
	Cg62–Pg1–Ps233	Cg62–Pg1–Ps234	Cg62–Pg1–Ps235	Cg62–Pg1–Ps236
	Cg62–Pg1–Ps237	Cg62–Pg1–Ps238	Cg62–Pg1–Ps239	Cg62–Pg1–Ps240
	Cg62–Pg1–Ps241	Cg62–Pg1–Ps242	Cg62–Pg1–Ps243	
30	Cg63–Pg1–Ps1	Cg63–Pg1–Ps2	Cg63–Pg1–Ps3	Cg63–Pg1–Ps4
	Cg63–Pg1–Ps5	Cg63–Pg1–Ps6	Cg63–Pg1–Ps7	Cg63–Pg1–Ps8
	Cg63–Pg1–Ps9	Cg63–Pg1–Ps10	Cg63–Pg1–Ps11	Cg63–Pg1–Ps12
	Cg63–Pg1–Ps13	Cg63–Pg1–Ps14	Cg63–Pg1–Ps15	Cg63–Pg1–Ps16
	Cg63–Pg1–Ps17	Cg63–Pg1–Ps18	Cg63–Pg1–Ps19	Cg63–Pg1–Ps20
35	Cg63–Pg1–Ps21	Cg63–Pg1–Ps22	Cg63–Pg1–Ps23	Cg63–Pg1–Ps24
	Cg63–Pg1–Ps25	Cg63–Pg1–Ps26	Cg63–Pg1–Ps27	Cg63–Pg1–Ps28
	Cg63–Pg1–Ps29	Cg63–Pg1–Ps30	Cg63–Pg1–Ps31	Cg63–Pg1–Ps32
	Cg63–Pg1–Ps33	Cg63–Pg1–Ps34	Cg63–Pg1–Ps35	Cg63–Pg1–Ps36
	Cg63–Pg1–Ps37	Cg63–Pg1–Ps38	Cg63–Pg1–Ps39	Cg63–Pg1–Ps40
40	Cg63–Pg1–Ps41	Cg63–Pg1–Ps42	Cg63–Pg1–Ps43	Cg63–Pg1–Ps44
	Cg63–Pg1–Ps45	Cg63–Pg1–Ps46	Cg63–Pg1–Ps47	Cg63–Pg1–Ps48
	Cg63–Pg1–Ps49	Cg63–Pg1–Ps50	Cg63–Pg1–Ps51	Cg63–Pg1–Ps52
	Cg63–Pg1–Ps53	Cg63–Pg1–Ps54	Cg63–Pg1–Ps55	Cg63–Pg1–Ps56
	Cg63–Pg1–Ps57	Cg63–Pg1–Ps58	Cg63–Pg1–Ps59	Cg63–Pg1–Ps60
45	Cg63–Pg1–Ps61	Cg63–Pg1–Ps62	Cg63–Pg1–Ps63	Cg63–Pg1–Ps64
	Cg63–Pg1–Ps65	Cg63–Pg1–Ps66	Cg63–Pg1–Ps67	Cg63–Pg1–Ps68
	Cg63–Pg1–Ps69	Cg63–Pg1–Ps70	Cg63–Pg1–Ps71	Cg63–Pg1–Ps72
	Cg63–Pg1–Ps73	Cg63–Pg1–Ps74	Cg63–Pg1–Ps75	Cg63–Pg1–Ps76
	Cg63–Pg1–Ps77	Cg63–Pg1–Ps78	Cg63–Pg1–Ps79	Cg63–Pg1–Ps80
50	Cg63–Pg1–Ps81	Cg63–Pg1–Ps82	Cg63–Pg1–Ps83	Cg63–Pg1–Ps84
	Cg63–Pg1–Ps85	Cg63–Pg1–Ps86	Cg63–Pg1–Ps87	Cg63–Pg1–Ps88
	Cg63–Pg1–Ps89	Cg63–Pg1–Ps90	Cg63–Pg1–Ps91	Cg63–Pg1–Ps92

	Cg63–Pg1–Ps93	Cg63–Pg1–Ps94	Cg63–Pg1–Ps95	Cg63–Pg1–Ps96
	Cg63–Pg1–Ps97	Cg63–Pg1–Ps98	Cg63–Pg1–Ps99	Cg63–Pg1–Ps100
	Cg63–Pg1–Ps101	Cg63–Pg1–Ps102	Cg63–Pg1–Ps103	Cg63–Pg1–Ps104
	Cg63–Pg1–Ps105	Cg63–Pg1–Ps106	Cg63–Pg1–Ps107	Cg63–Pg1–Ps108
5	Cg63–Pg1–Ps109	Cg63–Pg1–Ps110	Cg63–Pg1–Ps111	Cg63–Pg1–Ps112
	Cg63–Pg1–Ps113	Cg63–Pg1–Ps114	Cg63–Pg1–Ps115	Cg63–Pg1–Ps116
	Cg63–Pg1–Ps117	Cg63–Pg1–Ps118	Cg63–Pg1–Ps119	Cg63–Pg1–Ps120
	Cg63–Pg1–Ps121	Cg63–Pg1–Ps122	Cg63–Pg1–Ps123	Cg63–Pg1–Ps124
	Cg63–Pg1–Ps125	Cg63–Pg1–Ps126	Cg63–Pg1–Ps127	Cg63–Pg1–Ps128
10	Cg63–Pg1–Ps129	Cg63–Pg1–Ps130	Cg63–Pg1–Ps131	Cg63–Pg1–Ps132
	Cg63–Pg1–Ps133	Cg63–Pg1–Ps134	Cg63–Pg1–Ps135	Cg63–Pg1–Ps136
	Cg63–Pg1–Ps137	Cg63–Pg1–Ps138	Cg63–Pg1–Ps139	Cg63–Pg1–Ps140
	Cg63–Pg1–Ps141	Cg63–Pg1–Ps142	Cg63–Pg1–Ps143	Cg63–Pg1–Ps144
	Cg63–Pg1–Ps145	Cg63–Pg1–Ps146	Cg63–Pg1–Ps147	Cg63–Pg1–Ps148
15	Cg63–Pg1–Ps149	Cg63–Pg1–Ps150	Cg63–Pg1–Ps151	Cg63–Pg1–Ps152
	Cg63–Pg1–Ps153	Cg63–Pg1–Ps154	Cg63–Pg1–Ps155	Cg63–Pg1–Ps156
	Cg63–Pg1–Ps157	Cg63–Pg1–Ps158	Cg63–Pg1–Ps159	Cg63–Pg1–Ps160
	Cg63–Pg1–Ps161	Cg63–Pg1–Ps162	Cg63–Pg1–Ps163	Cg63–Pg1–Ps164
	Cg63–Pg1–Ps165	Cg63–Pg1–Ps166	Cg63–Pg1–Ps167	Cg63–Pg1–Ps168
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	Cg63–Pg1–Ps173	Cg63–Pg1–Ps174	Cg63–Pg1–Ps175	Cg63–Pg1–Ps176
	Cg63–Pg1–Ps177	Cg63–Pg1–Ps178	Cg63–Pg1–Ps179	Cg63–Pg1–Ps180
	Cg63–Pg1–Ps181	Cg63–Pg1–Ps182	Cg63–Pg1–Ps183	Cg63–Pg1–Ps184
	Cg63–Pg1–Ps185	Cg63–Pg1–Ps186	Cg63–Pg1–Ps187	Cg63–Pg1–Ps188
25	Cg63–Pg1–Ps189	Cg63–Pg1–Ps190	Cg63–Pg1–Ps191	Cg63–Pg1–Ps192
	Cg63–Pg1–Ps193	Cg63–Pg1–Ps194	Cg63–Pg1–Ps195	Cg63–Pg1–Ps196
	Cg63–Pg1–Ps197	Cg63–Pg1–Ps198	Cg63–Pg1–Ps199	Cg63–Pg1–Ps200
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	Cg63–Pg1–Ps221	Cg63–Pg1–Ps222	Cg63–Pg1–Ps223	Cg63–Pg1–Ps224
	Cg63–Pg1–Ps225	Cg63–Pg1–Ps226	Cg63–Pg1–Ps227	Cg63–Pg1–Ps228
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	Cg63–Pg1–Ps233	Cg63–Pg1–Ps234	Cg63–Pg1–Ps235	Cg63–Pg1–Ps236
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	Cg64–Pg1–Ps17	Cg64–Pg1–Ps18	Cg64–Pg1–Ps19	Cg64–Pg1–Ps20
45	Cg64–Pg1–Ps21	Cg64–Pg1–Ps22	Cg64–Pg1–Ps23	Cg64–Pg1–Ps24
	Cg64–Pg1–Ps25	Cg64–Pg1–Ps26	Cg64–Pg1–Ps27	Cg64–Pg1–Ps28
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	Cg64–Pg1–Ps33	Cg64–Pg1–Ps34	Cg64–Pg1–Ps35	Cg64–Pg1–Ps36
	Cg64–Pg1–Ps37	Cg64–Pg1–Ps38	Cg64–Pg1–Ps39	Cg64–Pg1–Ps40
50	Cg64–Pg1–Ps41	Cg64–Pg1–Ps42	Cg64–Pg1–Ps43	Cg64–Pg1–Ps44
	Cg64–Pg1–Ps45	Cg64–Pg1–Ps46	Cg64–Pg1–Ps47	Cg64–Pg1–Ps48
	Cg64–Pg1–Ps49	Cg64–Pg1–Ps50	Cg64–Pg1–Ps51	Cg64–Pg1–Ps52

	Cg64–Pg1–Ps53	Cg64–Pg1–Ps54	Cg64–Pg1–Ps55	Cg64–Pg1–Ps56
	Cg64–Pg1–Ps57	Cg64–Pg1–Ps58	Cg64–Pg1–Ps59	Cg64–Pg1–Ps60
	Cg64–Pg1–Ps61	Cg64–Pg1–Ps62	Cg64–Pg1–Ps63	Cg64–Pg1–Ps64
	Cg64–Pg1–Ps65	Cg64–Pg1–Ps66	Cg64–Pg1–Ps67	Cg64–Pg1–Ps68
5	Cg64–Pg1–Ps69	Cg64–Pg1–Ps70	Cg64–Pg1–Ps71	Cg64–Pg1–Ps72
	Cg64–Pg1–Ps73	Cg64–Pg1–Ps74	Cg64–Pg1–Ps75	Cg64–Pg1–Ps76
	Cg64–Pg1–Ps77	Cg64–Pg1–Ps78	Cg64–Pg1–Ps79	Cg64–Pg1–Ps80
	Cg64–Pg1–Ps81	Cg64–Pg1–Ps82	Cg64–Pg1–Ps83	Cg64–Pg1–Ps84
	Cg64–Pg1–Ps85	Cg64–Pg1–Ps86	Cg64–Pg1–Ps87	Cg64–Pg1–Ps88
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	Cg64–Pg1–Ps97	Cg64–Pg1–Ps98	Cg64–Pg1–Ps99	Cg64–Pg1–Ps100
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15	Cg64–Pg1–Ps109	Cg64–Pg1–Ps110	Cg64–Pg1–Ps111	Cg64–Pg1–Ps112
	Cg64–Pg1–Ps113	Cg64–Pg1–Ps114	Cg64–Pg1–Ps115	Cg64–Pg1–Ps116
	Cg64–Pg1–Ps117	Cg64–Pg1–Ps118	Cg64–Pg1–Ps119	Cg64–Pg1–Ps120
	Cg64–Pg1–Ps121	Cg64–Pg1–Ps122	Cg64–Pg1–Ps123	Cg64–Pg1–Ps124
	Cg64–Pg1–Ps125	Cg64–Pg1–Ps126	Cg64–Pg1–Ps127	Cg64–Pg1–Ps128
20	Cg64–Pg1–Ps129	Cg64–Pg1–Ps130	Cg64–Pg1–Ps131	Cg64–Pg1–Ps132
	Cg64–Pg1–Ps133	Cg64–Pg1–Ps134	Cg64–Pg1–Ps135	Cg64–Pg1–Ps136
	Cg64–Pg1–Ps137	Cg64–Pg1–Ps138	Cg64–Pg1–Ps139	Cg64–Pg1–Ps140
	Cg64–Pg1–Ps141	Cg64–Pg1–Ps142	Cg64–Pg1–Ps143	Cg64–Pg1–Ps144
	Cg64–Pg1–Ps145	Cg64–Pg1–Ps146	Cg64–Pg1–Ps147	Cg64–Pg1–Ps148
25	Cg64–Pg1–Ps149	Cg64–Pg1–Ps150	Cg64–Pg1–Ps151	Cg64–Pg1–Ps152
	Cg64–Pg1–Ps153	Cg64–Pg1–Ps154	Cg64–Pg1–Ps155	Cg64–Pg1–Ps156
	Cg64–Pg1–Ps157	Cg64–Pg1–Ps158	Cg64–Pg1–Ps159	Cg64–Pg1–Ps160
	Cg64–Pg1–Ps161	Cg64–Pg1–Ps162	Cg64–Pg1–Ps163	Cg64–Pg1–Ps164
	Cg64–Pg1–Ps165	Cg64–Pg1–Ps166	Cg64–Pg1–Ps167	Cg64–Pg1–Ps168
30	Cg64–Pg1–Ps169	Cg64–Pg1–Ps170	Cg64–Pg1–Ps171	Cg64–Pg1–Ps172
	Cg64–Pg1–Ps173	Cg64–Pg1–Ps174	Cg64–Pg1–Ps175	Cg64–Pg1–Ps176
	Cg64–Pg1–Ps177	Cg64–Pg1–Ps178	Cg64–Pg1–Ps179	Cg64–Pg1–Ps180
	Cg64–Pg1–Ps181	Cg64–Pg1–Ps182	Cg64–Pg1–Ps183	Cg64–Pg1–Ps184
	Cg64–Pg1–Ps185	Cg64–Pg1–Ps186	Cg64–Pg1–Ps187	Cg64–Pg1–Ps188
35	Cg64–Pg1–Ps189	Cg64–Pg1–Ps190	Cg64–Pg1–Ps191	Cg64–Pg1–Ps192
	Cg64–Pg1–Ps193	Cg64–Pg1–Ps194	Cg64–Pg1–Ps195	Cg64–Pg1–Ps196
	Cg64–Pg1–Ps197	Cg64–Pg1–Ps198	Cg64–Pg1–Ps199	Cg64–Pg1–Ps200
	Cg64–Pg1–Ps201	Cg64–Pg1–Ps202	Cg64–Pg1–Ps203	Cg64–Pg1–Ps204
	Cg64–Pg1–Ps205	Cg64–Pg1–Ps206	Cg64–Pg1–Ps207	Cg64–Pg1–Ps208
40	Cg64–Pg1–Ps209	Cg64–Pg1–Ps210	Cg64–Pg1–Ps211	Cg64–Pg1–Ps212
	Cg64–Pg1–Ps213	Cg64–Pg1–Ps214	Cg64–Pg1–Ps215	Cg64–Pg1–Ps216
	Cg64–Pg1–Ps217	Cg64–Pg1–Ps218	Cg64–Pg1–Ps219	Cg64–Pg1–Ps220
	Cg64–Pg1–Ps221	Cg64–Pg1–Ps222	Cg64–Pg1–Ps223	Cg64–Pg1–Ps224
	Cg64–Pg1–Ps225	Cg64–Pg1–Ps226	Cg64–Pg1–Ps227	Cg64–Pg1–Ps228
45	Cg64–Pg1–Ps229	Cg64–Pg1–Ps230	Cg64–Pg1–Ps231	Cg64–Pg1–Ps232
	Cg64–Pg1–Ps233	Cg64–Pg1–Ps234	Cg64–Pg1–Ps235	Cg64–Pg1–Ps236
	Cg64–Pg1–Ps237	Cg64–Pg1–Ps238	Cg64–Pg1–Ps239	Cg64–Pg1–Ps240
	Cg64–Pg1–Ps241	Cg64–Pg1–Ps242	Cg64–Pg1–Ps243	
50	Cg65–Pg1–Ps1	Cg65–Pg1–Ps2	Cg65–Pg1–Ps3	Cg65–Pg1–Ps4
	Cg65–Pg1–Ps5	Cg65–Pg1–Ps6	Cg65–Pg1–Ps7	Cg65–Pg1–Ps8
	Cg65–Pg1–Ps9	Cg65–Pg1–Ps10	Cg65–Pg1–Ps11	Cg65–Pg1–Ps12

	Cg65–Pg1–Ps13	Cg65–Pg1–Ps14	Cg65–Pg1–Ps15	Cg65–Pg1–Ps16
	Cg65–Pg1–Ps17	Cg65–Pg1–Ps18	Cg65–Pg1–Ps19	Cg65–Pg1–Ps20
	Cg65–Pg1–Ps21	Cg65–Pg1–Ps22	Cg65–Pg1–Ps23	Cg65–Pg1–Ps24
	Cg65–Pg1–Ps25	Cg65–Pg1–Ps26	Cg65–Pg1–Ps27	Cg65–Pg1–Ps28
5	Cg65–Pg1–Ps29	Cg65–Pg1–Ps30	Cg65–Pg1–Ps31	Cg65–Pg1–Ps32
	Cg65–Pg1–Ps33	Cg65–Pg1–Ps34	Cg65–Pg1–Ps35	Cg65–Pg1–Ps36
	Cg65–Pg1–Ps37	Cg65–Pg1–Ps38	Cg65–Pg1–Ps39	Cg65–Pg1–Ps40
	Cg65–Pg1–Ps41	Cg65–Pg1–Ps42	Cg65–Pg1–Ps43	Cg65–Pg1–Ps44
	Cg65–Pg1–Ps45	Cg65–Pg1–Ps46	Cg65–Pg1–Ps47	Cg65–Pg1–Ps48
10	Cg65–Pg1–Ps49	Cg65–Pg1–Ps50	Cg65–Pg1–Ps51	Cg65–Pg1–Ps52
	Cg65–Pg1–Ps53	Cg65–Pg1–Ps54	Cg65–Pg1–Ps55	Cg65–Pg1–Ps56
	Cg65–Pg1–Ps57	Cg65–Pg1–Ps58	Cg65–Pg1–Ps59	Cg65–Pg1–Ps60
	Cg65–Pg1–Ps61	Cg65–Pg1–Ps62	Cg65–Pg1–Ps63	Cg65–Pg1–Ps64
	Cg65–Pg1–Ps65	Cg65–Pg1–Ps66	Cg65–Pg1–Ps67	Cg65–Pg1–Ps68
15	Cg65–Pg1–Ps69	Cg65–Pg1–Ps70	Cg65–Pg1–Ps71	Cg65–Pg1–Ps72
	Cg65–Pg1–Ps73	Cg65–Pg1–Ps74	Cg65–Pg1–Ps75	Cg65–Pg1–Ps76
	Cg65–Pg1–Ps77	Cg65–Pg1–Ps78	Cg65–Pg1–Ps79	Cg65–Pg1–Ps80
	Cg65–Pg1–Ps81	Cg65–Pg1–Ps82	Cg65–Pg1–Ps83	Cg65–Pg1–Ps84
	Cg65–Pg1–Ps85	Cg65–Pg1–Ps86	Cg65–Pg1–Ps87	Cg65–Pg1–Ps88
20	Cg65–Pg1–Ps89	Cg65–Pg1–Ps90	Cg65–Pg1–Ps91	Cg65–Pg1–Ps92
	Cg65–Pg1–Ps93	Cg65–Pg1–Ps94	Cg65–Pg1–Ps95	Cg65–Pg1–Ps96
	Cg65–Pg1–Ps97	Cg65–Pg1–Ps98	Cg65–Pg1–Ps99	Cg65–Pg1–Ps100
	Cg65–Pg1–Ps101	Cg65–Pg1–Ps102	Cg65–Pg1–Ps103	Cg65–Pg1–Ps104
	Cg65–Pg1–Ps105	Cg65–Pg1–Ps106	Cg65–Pg1–Ps107	Cg65–Pg1–Ps108
25	Cg65–Pg1–Ps109	Cg65–Pg1–Ps110	Cg65–Pg1–Ps111	Cg65–Pg1–Ps112
	Cg65–Pg1–Ps113	Cg65–Pg1–Ps114	Cg65–Pg1–Ps115	Cg65–Pg1–Ps116
	Cg65–Pg1–Ps117	Cg65–Pg1–Ps118	Cg65–Pg1–Ps119	Cg65–Pg1–Ps120
	Cg65–Pg1–Ps121	Cg65–Pg1–Ps122	Cg65–Pg1–Ps123	Cg65–Pg1–Ps124
	Cg65–Pg1–Ps125	Cg65–Pg1–Ps126	Cg65–Pg1–Ps127	Cg65–Pg1–Ps128
30	Cg65–Pg1–Ps129	Cg65–Pg1–Ps130	Cg65–Pg1–Ps131	Cg65–Pg1–Ps132
	Cg65–Pg1–Ps133	Cg65–Pg1–Ps134	Cg65–Pg1–Ps135	Cg65–Pg1–Ps136
	Cg65–Pg1–Ps137	Cg65–Pg1–Ps138	Cg65–Pg1–Ps139	Cg65–Pg1–Ps140
	Cg65–Pg1–Ps141	Cg65–Pg1–Ps142	Cg65–Pg1–Ps143	Cg65–Pg1–Ps144
	Cg65–Pg1–Ps145	Cg65–Pg1–Ps146	Cg65–Pg1–Ps147	Cg65–Pg1–Ps148
35	Cg65–Pg1–Ps149	Cg65–Pg1–Ps150	Cg65–Pg1–Ps151	Cg65–Pg1–Ps152
	Cg65–Pg1–Ps153	Cg65–Pg1–Ps154	Cg65–Pg1–Ps155	Cg65–Pg1–Ps156
	Cg65–Pg1–Ps157	Cg65–Pg1–Ps158	Cg65–Pg1–Ps159	Cg65–Pg1–Ps160
	Cg65–Pg1–Ps161	Cg65–Pg1–Ps162	Cg65–Pg1–Ps163	Cg65–Pg1–Ps164
	Cg65–Pg1–Ps165	Cg65–Pg1–Ps166	Cg65–Pg1–Ps167	Cg65–Pg1–Ps168
40	Cg65–Pg1–Ps169	Cg65–Pg1–Ps170	Cg65–Pg1–Ps171	Cg65–Pg1–Ps172
	Cg65–Pg1–Ps173	Cg65–Pg1–Ps174	Cg65–Pg1–Ps175	Cg65–Pg1–Ps176
	Cg65–Pg1–Ps177	Cg65–Pg1–Ps178	Cg65–Pg1–Ps179	Cg65–Pg1–Ps180
	Cg65–Pg1–Ps181	Cg65–Pg1–Ps182	Cg65–Pg1–Ps183	Cg65–Pg1–Ps184
	Cg65–Pg1–Ps185	Cg65–Pg1–Ps186	Cg65–Pg1–Ps187	Cg65–Pg1–Ps188
45	Cg65–Pg1–Ps189	Cg65–Pg1–Ps190	Cg65–Pg1–Ps191	Cg65–Pg1–Ps192
	Cg65–Pg1–Ps193	Cg65–Pg1–Ps194	Cg65–Pg1–Ps195	Cg65–Pg1–Ps196
	Cg65–Pg1–Ps197	Cg65–Pg1–Ps198	Cg65–Pg1–Ps199	Cg65–Pg1–Ps200
	Cg65–Pg1–Ps201	Cg65–Pg1–Ps202	Cg65–Pg1–Ps203	Cg65–Pg1–Ps204
	Cg65–Pg1–Ps205	Cg65–Pg1–Ps206	Cg65–Pg1–Ps207	Cg65–Pg1–Ps208
50	Cg65–Pg1–Ps209	Cg65–Pg1–Ps210	Cg65–Pg1–Ps211	Cg65–Pg1–Ps212
	Cg65–Pg1–Ps213	Cg65–Pg1–Ps214	Cg65–Pg1–Ps215	Cg65–Pg1–Ps216
	Cg65–Pg1–Ps217	Cg65–Pg1–Ps218	Cg65–Pg1–Ps219	Cg65–Pg1–Ps220

	Cg65–Pg1–Ps221	Cg65–Pg1–Ps222	Cg65–Pg1–Ps223	Cg65–Pg1–Ps224
	Cg65–Pg1–Ps225	Cg65–Pg1–Ps226	Cg65–Pg1–Ps227	Cg65–Pg1–Ps228
	Cg65–Pg1–Ps229	Cg65–Pg1–Ps230	Cg65–Pg1–Ps231	Cg65–Pg1–Ps232
	Cg65–Pg1–Ps233	Cg65–Pg1–Ps234	Cg65–Pg1–Ps235	Cg65–Pg1–Ps236
5	Cg65–Pg1–Ps237	Cg65–Pg1–Ps238	Cg65–Pg1–Ps239	Cg65–Pg1–Ps240
	Cg65–Pg1–Ps241	Cg65–Pg1–Ps242	Cg65–Pg1–Ps243	
	Cg67–Pg1–Ps1	Cg67–Pg1–Ps2	Cg67–Pg1–Ps3	Cg67–Pg1–Ps4
	Cg67–Pg1–Ps5	Cg67–Pg1–Ps6	Cg67–Pg1–Ps7	Cg67–Pg1–Ps8
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	Cg67–Pg1–Ps13	Cg67–Pg1–Ps14	Cg67–Pg1–Ps15	Cg67–Pg1–Ps16
	Cg67–Pg1–Ps17	Cg67–Pg1–Ps18	Cg67–Pg1–Ps19	Cg67–Pg1–Ps20
	Cg67–Pg1–Ps21	Cg67–Pg1–Ps22	Cg67–Pg1–Ps23	Cg67–Pg1–Ps24
	Cg67–Pg1–Ps25	Cg67–Pg1–Ps26	Cg67–Pg1–Ps27	Cg67–Pg1–Ps28
15	Cg67–Pg1–Ps29	Cg67–Pg1–Ps30	Cg67–Pg1–Ps31	Cg67–Pg1–Ps32
	Cg67–Pg1–Ps33	Cg67–Pg1–Ps34	Cg67–Pg1–Ps35	Cg67–Pg1–Ps36
	Cg67–Pg1–Ps37	Cg67–Pg1–Ps38	Cg67–Pg1–Ps39	Cg67–Pg1–Ps40
	Cg67–Pg1–Ps41	Cg67–Pg1–Ps42	Cg67–Pg1–Ps43	Cg67–Pg1–Ps44
	Cg67–Pg1–Ps45	Cg67–Pg1–Ps46	Cg67–Pg1–Ps47	Cg67–Pg1–Ps48
20	Cg67–Pg1–Ps49	Cg67–Pg1–Ps50	Cg67–Pg1–Ps51	Cg67–Pg1–Ps52
	Cg67–Pg1–Ps53	Cg67–Pg1–Ps54	Cg67–Pg1–Ps55	Cg67–Pg1–Ps56
	Cg67–Pg1–Ps57	Cg67–Pg1–Ps58	Cg67–Pg1–Ps59	Cg67–Pg1–Ps60
	Cg67–Pg1–Ps61	Cg67–Pg1–Ps62	Cg67–Pg1–Ps63	Cg67–Pg1–Ps64
	Cg67–Pg1–Ps65	Cg67–Pg1–Ps66	Cg67–Pg1–Ps67	Cg67–Pg1–Ps68
25	Cg67–Pg1–Ps69	Cg67–Pg1–Ps70	Cg67–Pg1–Ps71	Cg67–Pg1–Ps72
	Cg67–Pg1–Ps73	Cg67–Pg1–Ps74	Cg67–Pg1–Ps75	Cg67–Pg1–Ps76
	Cg67–Pg1–Ps77	Cg67–Pg1–Ps78	Cg67–Pg1–Ps79	Cg67–Pg1–Ps80
	Cg67–Pg1–Ps81	Cg67–Pg1–Ps82	Cg67–Pg1–Ps83	Cg67–Pg1–Ps84
	Cg67–Pg1–Ps85	Cg67–Pg1–Ps86	Cg67–Pg1–Ps87	Cg67–Pg1–Ps88
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	Cg67–Pg1–Ps93	Cg67–Pg1–Ps94	Cg67–Pg1–Ps95	Cg67–Pg1–Ps96
	Cg67–Pg1–Ps97	Cg67–Pg1–Ps98	Cg67–Pg1–Ps99	Cg67–Pg1–Ps100
	Cg67–Pg1–Ps101	Cg67–Pg1–Ps102	Cg67–Pg1–Ps103	Cg67–Pg1–Ps104
	Cg67–Pg1–Ps105	Cg67–Pg1–Ps106	Cg67–Pg1–Ps107	Cg67–Pg1–Ps108
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	Cg67–Pg1–Ps113	Cg67–Pg1–Ps114	Cg67–Pg1–Ps115	Cg67–Pg1–Ps116
	Cg67–Pg1–Ps117	Cg67–Pg1–Ps118	Cg67–Pg1–Ps119	Cg67–Pg1–Ps120
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	Cg67–Pg1–Ps125	Cg67–Pg1–Ps126	Cg67–Pg1–Ps127	Cg67–Pg1–Ps128
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	Cg67–Pg1–Ps133	Cg67–Pg1–Ps134	Cg67–Pg1–Ps135	Cg67–Pg1–Ps136
	Cg67–Pg1–Ps137	Cg67–Pg1–Ps138	Cg67–Pg1–Ps139	Cg67–Pg1–Ps140
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	Cg67–Pg1–Ps145	Cg67–Pg1–Ps146	Cg67–Pg1–Ps147	Cg67–Pg1–Ps148
45	Cg67–Pg1–Ps149	Cg67–Pg1–Ps150	Cg67–Pg1–Ps151	Cg67–Pg1–Ps152
	Cg67–Pg1–Ps153	Cg67–Pg1–Ps154	Cg67–Pg1–Ps155	Cg67–Pg1–Ps156
	Cg67–Pg1–Ps157	Cg67–Pg1–Ps158	Cg67–Pg1–Ps159	Cg67–Pg1–Ps160
	Cg67–Pg1–Ps161	Cg67–Pg1–Ps162	Cg67–Pg1–Ps163	Cg67–Pg1–Ps164
	Cg67–Pg1–Ps165	Cg67–Pg1–Ps166	Cg67–Pg1–Ps167	Cg67–Pg1–Ps168
50	Cg67–Pg1–Ps169	Cg67–Pg1–Ps170	Cg67–Pg1–Ps171	Cg67–Pg1–Ps172
	Cg67–Pg1–Ps173	Cg67–Pg1–Ps174	Cg67–Pg1–Ps175	Cg67–Pg1–Ps176
	Cg67–Pg1–Ps177	Cg67–Pg1–Ps178	Cg67–Pg1–Ps179	Cg67–Pg1–Ps180

	Cg67–Pg1–Ps181	Cg67–Pg1–Ps182	Cg67–Pg1–Ps183	Cg67–Pg1–Ps184
	Cg67–Pg1–Ps185	Cg67–Pg1–Ps186	Cg67–Pg1–Ps187	Cg67–Pg1–Ps188
	Cg67–Pg1–Ps189	Cg67–Pg1–Ps190	Cg67–Pg1–Ps191	Cg67–Pg1–Ps192
	Cg67–Pg1–Ps193	Cg67–Pg1–Ps194	Cg67–Pg1–Ps195	Cg67–Pg1–Ps196
5	Cg67–Pg1–Ps197	Cg67–Pg1–Ps198	Cg67–Pg1–Ps199	Cg67–Pg1–Ps200
	Cg67–Pg1–Ps201	Cg67–Pg1–Ps202	Cg67–Pg1–Ps203	Cg67–Pg1–Ps204
	Cg67–Pg1–Ps205	Cg67–Pg1–Ps206	Cg67–Pg1–Ps207	Cg67–Pg1–Ps208
	Cg67–Pg1–Ps209	Cg67–Pg1–Ps210	Cg67–Pg1–Ps211	Cg67–Pg1–Ps212
	Cg67–Pg1–Ps213	Cg67–Pg1–Ps214	Cg67–Pg1–Ps215	Cg67–Pg1–Ps216
10	Cg67–Pg1–Ps217	Cg67–Pg1–Ps218	Cg67–Pg1–Ps219	Cg67–Pg1–Ps220
	Cg67–Pg1–Ps221	Cg67–Pg1–Ps222	Cg67–Pg1–Ps223	Cg67–Pg1–Ps224
	Cg67–Pg1–Ps225	Cg67–Pg1–Ps226	Cg67–Pg1–Ps227	Cg67–Pg1–Ps228
	Cg67–Pg1–Ps229	Cg67–Pg1–Ps230	Cg67–Pg1–Ps231	Cg67–Pg1–Ps232
	Cg67–Pg1–Ps233	Cg67–Pg1–Ps234	Cg67–Pg1–Ps235	Cg67–Pg1–Ps236
15	Cg67–Pg1–Ps237	Cg67–Pg1–Ps238	Cg67–Pg1–Ps239	Cg67–Pg1–Ps240
	Cg67–Pg1–Ps241	Cg67–Pg1–Ps242	Cg67–Pg1–Ps243	
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	Cg68–Pg1–Ps5	Cg68–Pg1–Ps6	Cg68–Pg1–Ps7	Cg68–Pg1–Ps8
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	Cg68–Pg1–Ps13	Cg68–Pg1–Ps14	Cg68–Pg1–Ps15	Cg68–Pg1–Ps16
	Cg68–Pg1–Ps17	Cg68–Pg1–Ps18	Cg68–Pg1–Ps19	Cg68–Pg1–Ps20
	Cg68–Pg1–Ps21	Cg68–Pg1–Ps22	Cg68–Pg1–Ps23	Cg68–Pg1–Ps24
	Cg68–Pg1–Ps25	Cg68–Pg1–Ps26	Cg68–Pg1–Ps27	Cg68–Pg1–Ps28
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	Cg68–Pg1–Ps33	Cg68–Pg1–Ps34	Cg68–Pg1–Ps35	Cg68–Pg1–Ps36
	Cg68–Pg1–Ps37	Cg68–Pg1–Ps38	Cg68–Pg1–Ps39	Cg68–Pg1–Ps40
	Cg68–Pg1–Ps41	Cg68–Pg1–Ps42	Cg68–Pg1–Ps43	Cg68–Pg1–Ps44
	Cg68–Pg1–Ps45	Cg68–Pg1–Ps46	Cg68–Pg1–Ps47	Cg68–Pg1–Ps48
30	Cg68–Pg1–Ps49	Cg68–Pg1–Ps50	Cg68–Pg1–Ps51	Cg68–Pg1–Ps52
	Cg68–Pg1–Ps53	Cg68–Pg1–Ps54	Cg68–Pg1–Ps55	Cg68–Pg1–Ps56
	Cg68–Pg1–Ps57	Cg68–Pg1–Ps58	Cg68–Pg1–Ps59	Cg68–Pg1–Ps60
	Cg68–Pg1–Ps61	Cg68–Pg1–Ps62	Cg68–Pg1–Ps63	Cg68–Pg1–Ps64
	Cg68–Pg1–Ps65	Cg68–Pg1–Ps66	Cg68–Pg1–Ps67	Cg68–Pg1–Ps68
35	Cg68–Pg1–Ps69	Cg68–Pg1–Ps70	Cg68–Pg1–Ps71	Cg68–Pg1–Ps72
	Cg68–Pg1–Ps73	Cg68–Pg1–Ps74	Cg68–Pg1–Ps75	Cg68–Pg1–Ps76
	Cg68–Pg1–Ps77	Cg68–Pg1–Ps78	Cg68–Pg1–Ps79	Cg68–Pg1–Ps80
	Cg68–Pg1–Ps81	Cg68–Pg1–Ps82	Cg68–Pg1–Ps83	Cg68–Pg1–Ps84
	Cg68–Pg1–Ps85	Cg68–Pg1–Ps86	Cg68–Pg1–Ps87	Cg68–Pg1–Ps88
40	Cg68–Pg1–Ps89	Cg68–Pg1–Ps90	Cg68–Pg1–Ps91	Cg68–Pg1–Ps92
	Cg68–Pg1–Ps93	Cg68–Pg1–Ps94	Cg68–Pg1–Ps95	Cg68–Pg1–Ps96
	Cg68–Pg1–Ps97	Cg68–Pg1–Ps98	Cg68–Pg1–Ps99	Cg68–Pg1–Ps100
	Cg68–Pg1–Ps101	Cg68–Pg1–Ps102	Cg68–Pg1–Ps103	Cg68–Pg1–Ps104
	Cg68–Pg1–Ps105	Cg68–Pg1–Ps106	Cg68–Pg1–Ps107	Cg68–Pg1–Ps108
45	Cg68–Pg1–Ps109	Cg68–Pg1–Ps110	Cg68–Pg1–Ps111	Cg68–Pg1–Ps112
	Cg68–Pg1–Ps113	Cg68–Pg1–Ps114	Cg68–Pg1–Ps115	Cg68–Pg1–Ps116
	Cg68–Pg1–Ps117	Cg68–Pg1–Ps118	Cg68–Pg1–Ps119	Cg68–Pg1–Ps120
	Cg68–Pg1–Ps121	Cg68–Pg1–Ps122	Cg68–Pg1–Ps123	Cg68–Pg1–Ps124
	Cg68–Pg1–Ps125	Cg68–Pg1–Ps126	Cg68–Pg1–Ps127	Cg68–Pg1–Ps128
50	Cg68–Pg1–Ps129	Cg68–Pg1–Ps130	Cg68–Pg1–Ps131	Cg68–Pg1–Ps132
	Cg68–Pg1–Ps133	Cg68–Pg1–Ps134	Cg68–Pg1–Ps135	Cg68–Pg1–Ps136
	Cg68–Pg1–Ps137	Cg68–Pg1–Ps138	Cg68–Pg1–Ps139	Cg68–Pg1–Ps140

	Cg68–Pg1–Ps141	Cg68–Pg1–Ps142	Cg68–Pg1–Ps143	Cg68–Pg1–Ps144
	Cg68–Pg1–Ps145	Cg68–Pg1–Ps146	Cg68–Pg1–Ps147	Cg68–Pg1–Ps148
	Cg68–Pg1–Ps149	Cg68–Pg1–Ps150	Cg68–Pg1–Ps151	Cg68–Pg1–Ps152
	Cg68–Pg1–Ps153	Cg68–Pg1–Ps154	Cg68–Pg1–Ps155	Cg68–Pg1–Ps156
5	Cg68–Pg1–Ps157	Cg68–Pg1–Ps158	Cg68–Pg1–Ps159	Cg68–Pg1–Ps160
	Cg68–Pg1–Ps161	Cg68–Pg1–Ps162	Cg68–Pg1–Ps163	Cg68–Pg1–Ps164
	Cg68–Pg1–Ps165	Cg68–Pg1–Ps166	Cg68–Pg1–Ps167	Cg68–Pg1–Ps168
	Cg68–Pg1–Ps169	Cg68–Pg1–Ps170	Cg68–Pg1–Ps171	Cg68–Pg1–Ps172
	Cg68–Pg1–Ps173	Cg68–Pg1–Ps174	Cg68–Pg1–Ps175	Cg68–Pg1–Ps176
10	Cg68–Pg1–Ps177	Cg68–Pg1–Ps178	Cg68–Pg1–Ps179	Cg68–Pg1–Ps180
	Cg68–Pg1–Ps181	Cg68–Pg1–Ps182	Cg68–Pg1–Ps183	Cg68–Pg1–Ps184
	Cg68–Pg1–Ps185	Cg68–Pg1–Ps186	Cg68–Pg1–Ps187	Cg68–Pg1–Ps188
	Cg68–Pg1–Ps189	Cg68–Pg1–Ps190	Cg68–Pg1–Ps191	Cg68–Pg1–Ps192
	Cg68–Pg1–Ps193	Cg68–Pg1–Ps194	Cg68–Pg1–Ps195	Cg68–Pg1–Ps196
15	Cg68–Pg1–Ps197	Cg68–Pg1–Ps198	Cg68–Pg1–Ps199	Cg68–Pg1–Ps200
	Cg68–Pg1–Ps201	Cg68–Pg1–Ps202	Cg68–Pg1–Ps203	Cg68–Pg1–Ps204
	Cg68–Pg1–Ps205	Cg68–Pg1–Ps206	Cg68–Pg1–Ps207	Cg68–Pg1–Ps208
	Cg68–Pg1–Ps209	Cg68–Pg1–Ps210	Cg68–Pg1–Ps211	Cg68–Pg1–Ps212
	Cg68–Pg1–Ps213	Cg68–Pg1–Ps214	Cg68–Pg1–Ps215	Cg68–Pg1–Ps216
20	Cg68–Pg1–Ps217	Cg68–Pg1–Ps218	Cg68–Pg1–Ps219	Cg68–Pg1–Ps220
	Cg68–Pg1–Ps221	Cg68–Pg1–Ps222	Cg68–Pg1–Ps223	Cg68–Pg1–Ps224
	Cg68–Pg1–Ps225	Cg68–Pg1–Ps226	Cg68–Pg1–Ps227	Cg68–Pg1–Ps228
	Cg68–Pg1–Ps229	Cg68–Pg1–Ps230	Cg68–Pg1–Ps231	Cg68–Pg1–Ps232
	Cg68–Pg1–Ps233	Cg68–Pg1–Ps234	Cg68–Pg1–Ps235	Cg68–Pg1–Ps236
25	Cg68–Pg1–Ps237	Cg68–Pg1–Ps238	Cg68–Pg1–Ps239	Cg68–Pg1–Ps240
	Cg68–Pg1–Ps241	Cg68–Pg1–Ps242	Cg68–Pg1–Ps243	
	Cg69–Pg1–Ps1	Cg69–Pg1–Ps2	Cg69–Pg1–Ps3	Cg69–Pg1–Ps4
	Cg69–Pg1–Ps5	Cg69–Pg1–Ps6	Cg69–Pg1–Ps7	Cg69–Pg1–Ps8
30	Cg69–Pg1–Ps9	Cg69–Pg1–Ps10	Cg69–Pg1–Ps11	Cg69–Pg1–Ps12
	Cg69–Pg1–Ps13	Cg69–Pg1–Ps14	Cg69–Pg1–Ps15	Cg69–Pg1–Ps16
	Cg69–Pg1–Ps17	Cg69–Pg1–Ps18	Cg69–Pg1–Ps19	Cg69–Pg1–Ps20
	Cg69–Pg1–Ps21	Cg69–Pg1–Ps22	Cg69–Pg1–Ps23	Cg69–Pg1–Ps24
	Cg69–Pg1–Ps25	Cg69–Pg1–Ps26	Cg69–Pg1–Ps27	Cg69–Pg1–Ps28
35	Cg69–Pg1–Ps29	Cg69–Pg1–Ps30	Cg69–Pg1–Ps31	Cg69–Pg1–Ps32
	Cg69–Pg1–Ps33	Cg69–Pg1–Ps34	Cg69–Pg1–Ps35	Cg69–Pg1–Ps36
	Cg69–Pg1–Ps37	Cg69–Pg1–Ps38	Cg69–Pg1–Ps39	Cg69–Pg1–Ps40
	Cg69–Pg1–Ps41	Cg69–Pg1–Ps42	Cg69–Pg1–Ps43	Cg69–Pg1–Ps44
	Cg69–Pg1–Ps45	Cg69–Pg1–Ps46	Cg69–Pg1–Ps47	Cg69–Pg1–Ps48
40	Cg69–Pg1–Ps49	Cg69–Pg1–Ps50	Cg69–Pg1–Ps51	Cg69–Pg1–Ps52
	Cg69–Pg1–Ps53	Cg69–Pg1–Ps54	Cg69–Pg1–Ps55	Cg69–Pg1–Ps56
	Cg69–Pg1–Ps57	Cg69–Pg1–Ps58	Cg69–Pg1–Ps59	Cg69–Pg1–Ps60
	Cg69–Pg1–Ps61	Cg69–Pg1–Ps62	Cg69–Pg1–Ps63	Cg69–Pg1–Ps64
	Cg69–Pg1–Ps65	Cg69–Pg1–Ps66	Cg69–Pg1–Ps67	Cg69–Pg1–Ps68
45	Cg69–Pg1–Ps69	Cg69–Pg1–Ps70	Cg69–Pg1–Ps71	Cg69–Pg1–Ps72
	Cg69–Pg1–Ps73	Cg69–Pg1–Ps74	Cg69–Pg1–Ps75	Cg69–Pg1–Ps76
	Cg69–Pg1–Ps77	Cg69–Pg1–Ps78	Cg69–Pg1–Ps79	Cg69–Pg1–Ps80
	Cg69–Pg1–Ps81	Cg69–Pg1–Ps82	Cg69–Pg1–Ps83	Cg69–Pg1–Ps84
	Cg69–Pg1–Ps85	Cg69–Pg1–Ps86	Cg69–Pg1–Ps87	Cg69–Pg1–Ps88
50	Cg69–Pg1–Ps89	Cg69–Pg1–Ps90	Cg69–Pg1–Ps91	Cg69–Pg1–Ps92
	Cg69–Pg1–Ps93	Cg69–Pg1–Ps94	Cg69–Pg1–Ps95	Cg69–Pg1–Ps96
	Cg69–Pg1–Ps97	Cg69–Pg1–Ps98	Cg69–Pg1–Ps99	Cg69–Pg1–Ps100

Cg69–Pg1–Ps101	Cg69–Pg1–Ps102	Cg69–Pg1–Ps103	Cg69–Pg1–Ps104
Cg69–Pg1–Ps105	Cg69–Pg1–Ps106	Cg69–Pg1–Ps107	Cg69–Pg1–Ps108
Cg69–Pg1–Ps109	Cg69–Pg1–Ps110	Cg69–Pg1–Ps111	Cg69–Pg1–Ps112
Cg69–Pg1–Ps113	Cg69–Pg1–Ps114	Cg69–Pg1–Ps115	Cg69–Pg1–Ps116
Cg69–Pg1–Ps117	Cg69–Pg1–Ps118	Cg69–Pg1–Ps119	Cg69–Pg1–Ps120
Cg69–Pg1–Ps121	Cg69–Pg1–Ps122	Cg69–Pg1–Ps123	Cg69–Pg1–Ps124
Cg69–Pg1–Ps125	Cg69–Pg1–Ps126	Cg69–Pg1–Ps127	Cg69–Pg1–Ps128
Cg69–Pg1–Ps129	Cg69–Pg1–Ps130	Cg69–Pg1–Ps131	Cg69–Pg1–Ps132
Cg69–Pg1–Ps133	Cg69–Pg1–Ps134	Cg69–Pg1–Ps135	Cg69–Pg1–Ps136
Cg69–Pg1–Ps137	Cg69–Pg1–Ps138	Cg69–Pg1–Ps139	Cg69–Pg1–Ps140
Cg69–Pg1–Ps141	Cg69–Pg1–Ps142	Cg69–Pg1–Ps143	Cg69–Pg1–Ps144
Cg69–Pg1–Ps145	Cg69–Pg1–Ps146	Cg69–Pg1–Ps147	Cg69–Pg1–Ps148
Cg69–Pg1–Ps149	Cg69–Pg1–Ps150	Cg69–Pg1–Ps151	Cg69–Pg1–Ps152
Cg69–Pg1–Ps153	Cg69–Pg1–Ps154	Cg69–Pg1–Ps155	Cg69–Pg1–Ps156
Cg69–Pg1–Ps157	Cg69–Pg1–Ps158	Cg69–Pg1–Ps159	Cg69–Pg1–Ps160
Cg69–Pg1–Ps161	Cg69–Pg1–Ps162	Cg69–Pg1–Ps163	Cg69–Pg1–Ps164
Cg69–Pg1–Ps165	Cg69–Pg1–Ps166	Cg69–Pg1–Ps167	Cg69–Pg1–Ps168
Cg69–Pg1–Ps169	Cg69–Pg1–Ps170	Cg69–Pg1–Ps171	Cg69–Pg1–Ps172
Cg69–Pg1–Ps173	Cg69–Pg1–Ps174	Cg69–Pg1–Ps175	Cg69–Pg1–Ps176
Cg69–Pg1–Ps177	Cg69–Pg1–Ps178	Cg69–Pg1–Ps179	Cg69–Pg1–Ps180
Cg69–Pg1–Ps181	Cg69–Pg1–Ps182	Cg69–Pg1–Ps183	Cg69–Pg1–Ps184
Cg69–Pg1–Ps185	Cg69–Pg1–Ps186	Cg69–Pg1–Ps187	Cg69–Pg1–Ps188
Cg69–Pg1–Ps189	Cg69–Pg1–Ps190	Cg69–Pg1–Ps191	Cg69–Pg1–Ps192
Cg69–Pg1–Ps193	Cg69–Pg1–Ps194	Cg69–Pg1–Ps195	Cg69–Pg1–Ps196
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Cg69–Pg1–Ps201	Cg69–Pg1–Ps202	Cg69–Pg1–Ps203	Cg69–Pg1–Ps204
Cg69–Pg1–Ps205	Cg69–Pg1–Ps206	Cg69–Pg1–Ps207	Cg69–Pg1–Ps208
Cg69–Pg1–Ps209	Cg69–Pg1–Ps210	Cg69–Pg1–Ps211	Cg69–Pg1–Ps212
Cg69–Pg1–Ps213	Cg69–Pg1–Ps214	Cg69–Pg1–Ps215	Cg69–Pg1–Ps216
Cg69–Pg1–Ps217	Cg69–Pg1–Ps218	Cg69–Pg1–Ps219	Cg69–Pg1–Ps220
Cg69–Pg1–Ps221	Cg69–Pg1–Ps222	Cg69–Pg1–Ps223	Cg69–Pg1–Ps224
Cg69–Pg1–Ps225	Cg69–Pg1–Ps226	Cg69–Pg1–Ps227	Cg69–Pg1–Ps228
Cg69–Pg1–Ps229	Cg69–Pg1–Ps230	Cg69–Pg1–Ps231	Cg69–Pg1–Ps232
Cg69–Pg1–Ps233	Cg69–Pg1–Ps234	Cg69–Pg1–Ps235	Cg69–Pg1–Ps236
Cg69–Pg1–Ps237	Cg69–Pg1–Ps238	Cg69–Pg1–Ps239	Cg69–Pg1–Ps240
Cg69–Pg1–Ps241	Cg69–Pg1–Ps242	Cg69–Pg1–Ps243	

Cg70–Pg1–Ps1	Cg70–Pg1–Ps2	Cg70–Pg1–Ps3	Cg70–Pg1–Ps4
Cg70–Pg1–Ps5	Cg70–Pg1–Ps6	Cg70–Pg1–Ps7	Cg70–Pg1–Ps8
Cg70–Pg1–Ps9	Cg70–Pg1–Ps10	Cg70–Pg1–Ps11	Cg70–Pg1–Ps12
Cg70–Pg1–Ps13	Cg70–Pg1–Ps14	Cg70–Pg1–Ps15	Cg70–Pg1–Ps16
Cg70–Pg1–Ps17	Cg70–Pg1–Ps18	Cg70–Pg1–Ps19	Cg70–Pg1–Ps20
Cg70–Pg1–Ps21	Cg70–Pg1–Ps22	Cg70–Pg1–Ps23	Cg70–Pg1–Ps24
Cg70–Pg1–Ps25	Cg70–Pg1–Ps26	Cg70–Pg1–Ps27	Cg70–Pg1–Ps28
Cg70–Pg1–Ps29	Cg70–Pg1–Ps30	Cg70–Pg1–Ps31	Cg70–Pg1–Ps32
Cg70–Pg1–Ps33	Cg70–Pg1–Ps34	Cg70–Pg1–Ps35	Cg70–Pg1–Ps36
Cg70–Pg1–Ps37	Cg70–Pg1–Ps38	Cg70–Pg1–Ps39	Cg70–Pg1–Ps40
Cg70–Pg1–Ps41	Cg70–Pg1–Ps42	Cg70–Pg1–Ps43	Cg70–Pg1–Ps44
Cg70–Pg1–Ps45	Cg70–Pg1–Ps46	Cg70–Pg1–Ps47	Cg70–Pg1–Ps48
Cg70–Pg1–Ps49	Cg70–Pg1–Ps50	Cg70–Pg1–Ps51	Cg70–Pg1–Ps52
Cg70–Pg1–Ps53	Cg70–Pg1–Ps54	Cg70–Pg1–Ps55	Cg70–Pg1–Ps56
Cg70–Pg1–Ps57	Cg70–Pg1–Ps58	Cg70–Pg1–Ps59	Cg70–Pg1–Ps60

	Cg70–Pg1–Ps61	Cg70–Pg1–Ps62	Cg70–Pg1–Ps63	Cg70–Pg1–Ps64
	Cg70–Pg1–Ps65	Cg70–Pg1–Ps66	Cg70–Pg1–Ps67	Cg70–Pg1–Ps68
	Cg70–Pg1–Ps69	Cg70–Pg1–Ps70	Cg70–Pg1–Ps71	Cg70–Pg1–Ps72
	Cg70–Pg1–Ps73	Cg70–Pg1–Ps74	Cg70–Pg1–Ps75	Cg70–Pg1–Ps76
5	Cg70–Pg1–Ps77	Cg70–Pg1–Ps78	Cg70–Pg1–Ps79	Cg70–Pg1–Ps80
	Cg70–Pg1–Ps81	Cg70–Pg1–Ps82	Cg70–Pg1–Ps83	Cg70–Pg1–Ps84
	Cg70–Pg1–Ps85	Cg70–Pg1–Ps86	Cg70–Pg1–Ps87	Cg70–Pg1–Ps88
	Cg70–Pg1–Ps89	Cg70–Pg1–Ps90	Cg70–Pg1–Ps91	Cg70–Pg1–Ps92
	Cg70–Pg1–Ps93	Cg70–Pg1–Ps94	Cg70–Pg1–Ps95	Cg70–Pg1–Ps96
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	Cg70–Pg1–Ps101	Cg70–Pg1–Ps102	Cg70–Pg1–Ps103	Cg70–Pg1–Ps104
	Cg70–Pg1–Ps105	Cg70–Pg1–Ps106	Cg70–Pg1–Ps107	Cg70–Pg1–Ps108
	Cg70–Pg1–Ps109	Cg70–Pg1–Ps110	Cg70–Pg1–Ps111	Cg70–Pg1–Ps112
	Cg70–Pg1–Ps113	Cg70–Pg1–Ps114	Cg70–Pg1–Ps115	Cg70–Pg1–Ps116
15	Cg70–Pg1–Ps117	Cg70–Pg1–Ps118	Cg70–Pg1–Ps119	Cg70–Pg1–Ps120
	Cg70–Pg1–Ps121	Cg70–Pg1–Ps122	Cg70–Pg1–Ps123	Cg70–Pg1–Ps124
	Cg70–Pg1–Ps125	Cg70–Pg1–Ps126	Cg70–Pg1–Ps127	Cg70–Pg1–Ps128
	Cg70–Pg1–Ps129	Cg70–Pg1–Ps130	Cg70–Pg1–Ps131	Cg70–Pg1–Ps132
	Cg70–Pg1–Ps133	Cg70–Pg1–Ps134	Cg70–Pg1–Ps135	Cg70–Pg1–Ps136
20	Cg70–Pg1–Ps137	Cg70–Pg1–Ps138	Cg70–Pg1–Ps139	Cg70–Pg1–Ps140
	Cg70–Pg1–Ps141	Cg70–Pg1–Ps142	Cg70–Pg1–Ps143	Cg70–Pg1–Ps144
	Cg70–Pg1–Ps145	Cg70–Pg1–Ps146	Cg70–Pg1–Ps147	Cg70–Pg1–Ps148
	Cg70–Pg1–Ps149	Cg70–Pg1–Ps150	Cg70–Pg1–Ps151	Cg70–Pg1–Ps152
	Cg70–Pg1–Ps153	Cg70–Pg1–Ps154	Cg70–Pg1–Ps155	Cg70–Pg1–Ps156
25	Cg70–Pg1–Ps157	Cg70–Pg1–Ps158	Cg70–Pg1–Ps159	Cg70–Pg1–Ps160
	Cg70–Pg1–Ps161	Cg70–Pg1–Ps162	Cg70–Pg1–Ps163	Cg70–Pg1–Ps164
	Cg70–Pg1–Ps165	Cg70–Pg1–Ps166	Cg70–Pg1–Ps167	Cg70–Pg1–Ps168
	Cg70–Pg1–Ps169	Cg70–Pg1–Ps170	Cg70–Pg1–Ps171	Cg70–Pg1–Ps172
	Cg70–Pg1–Ps173	Cg70–Pg1–Ps174	Cg70–Pg1–Ps175	Cg70–Pg1–Ps176
30	Cg70–Pg1–Ps177	Cg70–Pg1–Ps178	Cg70–Pg1–Ps179	Cg70–Pg1–Ps180
	Cg70–Pg1–Ps181	Cg70–Pg1–Ps182	Cg70–Pg1–Ps183	Cg70–Pg1–Ps184
	Cg70–Pg1–Ps185	Cg70–Pg1–Ps186	Cg70–Pg1–Ps187	Cg70–Pg1–Ps188
	Cg70–Pg1–Ps189	Cg70–Pg1–Ps190	Cg70–Pg1–Ps191	Cg70–Pg1–Ps192
	Cg70–Pg1–Ps193	Cg70–Pg1–Ps194	Cg70–Pg1–Ps195	Cg70–Pg1–Ps196
35	Cg70–Pg1–Ps197	Cg70–Pg1–Ps198	Cg70–Pg1–Ps199	Cg70–Pg1–Ps200
	Cg70–Pg1–Ps201	Cg70–Pg1–Ps202	Cg70–Pg1–Ps203	Cg70–Pg1–Ps204
	Cg70–Pg1–Ps205	Cg70–Pg1–Ps206	Cg70–Pg1–Ps207	Cg70–Pg1–Ps208
	Cg70–Pg1–Ps209	Cg70–Pg1–Ps210	Cg70–Pg1–Ps211	Cg70–Pg1–Ps212
	Cg70–Pg1–Ps213	Cg70–Pg1–Ps214	Cg70–Pg1–Ps215	Cg70–Pg1–Ps216
40	Cg70–Pg1–Ps217	Cg70–Pg1–Ps218	Cg70–Pg1–Ps219	Cg70–Pg1–Ps220
	Cg70–Pg1–Ps221	Cg70–Pg1–Ps222	Cg70–Pg1–Ps223	Cg70–Pg1–Ps224
	Cg70–Pg1–Ps225	Cg70–Pg1–Ps226	Cg70–Pg1–Ps227	Cg70–Pg1–Ps228
	Cg70–Pg1–Ps229	Cg70–Pg1–Ps230	Cg70–Pg1–Ps231	Cg70–Pg1–Ps232
	Cg70–Pg1–Ps233	Cg70–Pg1–Ps234	Cg70–Pg1–Ps235	Cg70–Pg1–Ps236
45	Cg70–Pg1–Ps237	Cg70–Pg1–Ps238	Cg70–Pg1–Ps239	Cg70–Pg1–Ps240
	Cg70–Pg1–Ps241	Cg70–Pg1–Ps242	Cg70–Pg1–Ps243	
	Cg73–Pg1–Ps1	Cg73–Pg1–Ps2	Cg73–Pg1–Ps3	Cg73–Pg1–Ps4
	Cg73–Pg1–Ps5	Cg73–Pg1–Ps6	Cg73–Pg1–Ps7	Cg73–Pg1–Ps8
50	Cg73–Pg1–Ps9	Cg73–Pg1–Ps10	Cg73–Pg1–Ps11	Cg73–Pg1–Ps12
	Cg73–Pg1–Ps13	Cg73–Pg1–Ps14	Cg73–Pg1–Ps15	Cg73–Pg1–Ps16
	Cg73–Pg1–Ps17	Cg73–Pg1–Ps18	Cg73–Pg1–Ps19	Cg73–Pg1–Ps20

	Cg73–Pg1–Ps21	Cg73–Pg1–Ps22	Cg73–Pg1–Ps23	Cg73–Pg1–Ps24
	Cg73–Pg1–Ps25	Cg73–Pg1–Ps26	Cg73–Pg1–Ps27	Cg73–Pg1–Ps28
	Cg73–Pg1–Ps29	Cg73–Pg1–Ps30	Cg73–Pg1–Ps31	Cg73–Pg1–Ps32
	Cg73–Pg1–Ps33	Cg73–Pg1–Ps34	Cg73–Pg1–Ps35	Cg73–Pg1–Ps36
5	Cg73–Pg1–Ps37	Cg73–Pg1–Ps38	Cg73–Pg1–Ps39	Cg73–Pg1–Ps40
	Cg73–Pg1–Ps41	Cg73–Pg1–Ps42	Cg73–Pg1–Ps43	Cg73–Pg1–Ps44
	Cg73–Pg1–Ps45	Cg73–Pg1–Ps46	Cg73–Pg1–Ps47	Cg73–Pg1–Ps48
	Cg73–Pg1–Ps49	Cg73–Pg1–Ps50	Cg73–Pg1–Ps51	Cg73–Pg1–Ps52
	Cg73–Pg1–Ps53	Cg73–Pg1–Ps54	Cg73–Pg1–Ps55	Cg73–Pg1–Ps56
10	Cg73–Pg1–Ps57	Cg73–Pg1–Ps58	Cg73–Pg1–Ps59	Cg73–Pg1–Ps60
	Cg73–Pg1–Ps61	Cg73–Pg1–Ps62	Cg73–Pg1–Ps63	Cg73–Pg1–Ps64
	Cg73–Pg1–Ps65	Cg73–Pg1–Ps66	Cg73–Pg1–Ps67	Cg73–Pg1–Ps68
	Cg73–Pg1–Ps69	Cg73–Pg1–Ps70	Cg73–Pg1–Ps71	Cg73–Pg1–Ps72
	Cg73–Pg1–Ps73	Cg73–Pg1–Ps74	Cg73–Pg1–Ps75	Cg73–Pg1–Ps76
15	Cg73–Pg1–Ps77	Cg73–Pg1–Ps78	Cg73–Pg1–Ps79	Cg73–Pg1–Ps80
	Cg73–Pg1–Ps81	Cg73–Pg1–Ps82	Cg73–Pg1–Ps83	Cg73–Pg1–Ps84
	Cg73–Pg1–Ps85	Cg73–Pg1–Ps86	Cg73–Pg1–Ps87	Cg73–Pg1–Ps88
	Cg73–Pg1–Ps89	Cg73–Pg1–Ps90	Cg73–Pg1–Ps91	Cg73–Pg1–Ps92
	Cg73–Pg1–Ps93	Cg73–Pg1–Ps94	Cg73–Pg1–Ps95	Cg73–Pg1–Ps96
20	Cg73–Pg1–Ps97	Cg73–Pg1–Ps98	Cg73–Pg1–Ps99	Cg73–Pg1–Ps100
	Cg73–Pg1–Ps101	Cg73–Pg1–Ps102	Cg73–Pg1–Ps103	Cg73–Pg1–Ps104
	Cg73–Pg1–Ps105	Cg73–Pg1–Ps106	Cg73–Pg1–Ps107	Cg73–Pg1–Ps108
	Cg73–Pg1–Ps109	Cg73–Pg1–Ps110	Cg73–Pg1–Ps111	Cg73–Pg1–Ps112
	Cg73–Pg1–Ps113	Cg73–Pg1–Ps114	Cg73–Pg1–Ps115	Cg73–Pg1–Ps116
25	Cg73–Pg1–Ps117	Cg73–Pg1–Ps118	Cg73–Pg1–Ps119	Cg73–Pg1–Ps120
	Cg73–Pg1–Ps121	Cg73–Pg1–Ps122	Cg73–Pg1–Ps123	Cg73–Pg1–Ps124
	Cg73–Pg1–Ps125	Cg73–Pg1–Ps126	Cg73–Pg1–Ps127	Cg73–Pg1–Ps128
	Cg73–Pg1–Ps129	Cg73–Pg1–Ps130	Cg73–Pg1–Ps131	Cg73–Pg1–Ps132
	Cg73–Pg1–Ps133	Cg73–Pg1–Ps134	Cg73–Pg1–Ps135	Cg73–Pg1–Ps136
30	Cg73–Pg1–Ps137	Cg73–Pg1–Ps138	Cg73–Pg1–Ps139	Cg73–Pg1–Ps140
	Cg73–Pg1–Ps141	Cg73–Pg1–Ps142	Cg73–Pg1–Ps143	Cg73–Pg1–Ps144
	Cg73–Pg1–Ps145	Cg73–Pg1–Ps146	Cg73–Pg1–Ps147	Cg73–Pg1–Ps148
	Cg73–Pg1–Ps149	Cg73–Pg1–Ps150	Cg73–Pg1–Ps151	Cg73–Pg1–Ps152
	Cg73–Pg1–Ps153	Cg73–Pg1–Ps154	Cg73–Pg1–Ps155	Cg73–Pg1–Ps156
35	Cg73–Pg1–Ps157	Cg73–Pg1–Ps158	Cg73–Pg1–Ps159	Cg73–Pg1–Ps160
	Cg73–Pg1–Ps161	Cg73–Pg1–Ps162	Cg73–Pg1–Ps163	Cg73–Pg1–Ps164
	Cg73–Pg1–Ps165	Cg73–Pg1–Ps166	Cg73–Pg1–Ps167	Cg73–Pg1–Ps168
	Cg73–Pg1–Ps169	Cg73–Pg1–Ps170	Cg73–Pg1–Ps171	Cg73–Pg1–Ps172
	Cg73–Pg1–Ps173	Cg73–Pg1–Ps174	Cg73–Pg1–Ps175	Cg73–Pg1–Ps176
40	Cg73–Pg1–Ps177	Cg73–Pg1–Ps178	Cg73–Pg1–Ps179	Cg73–Pg1–Ps180
	Cg73–Pg1–Ps181	Cg73–Pg1–Ps182	Cg73–Pg1–Ps183	Cg73–Pg1–Ps184
	Cg73–Pg1–Ps185	Cg73–Pg1–Ps186	Cg73–Pg1–Ps187	Cg73–Pg1–Ps188
	Cg73–Pg1–Ps189	Cg73–Pg1–Ps190	Cg73–Pg1–Ps191	Cg73–Pg1–Ps192
	Cg73–Pg1–Ps193	Cg73–Pg1–Ps194	Cg73–Pg1–Ps195	Cg73–Pg1–Ps196
45	Cg73–Pg1–Ps197	Cg73–Pg1–Ps198	Cg73–Pg1–Ps199	Cg73–Pg1–Ps200
	Cg73–Pg1–Ps201	Cg73–Pg1–Ps202	Cg73–Pg1–Ps203	Cg73–Pg1–Ps204
	Cg73–Pg1–Ps205	Cg73–Pg1–Ps206	Cg73–Pg1–Ps207	Cg73–Pg1–Ps208
	Cg73–Pg1–Ps209	Cg73–Pg1–Ps210	Cg73–Pg1–Ps211	Cg73–Pg1–Ps212
	Cg73–Pg1–Ps213	Cg73–Pg1–Ps214	Cg73–Pg1–Ps215	Cg73–Pg1–Ps216
50	Cg73–Pg1–Ps217	Cg73–Pg1–Ps218	Cg73–Pg1–Ps219	Cg73–Pg1–Ps220
	Cg73–Pg1–Ps221	Cg73–Pg1–Ps222	Cg73–Pg1–Ps223	Cg73–Pg1–Ps224
	Cg73–Pg1–Ps225	Cg73–Pg1–Ps226	Cg73–Pg1–Ps227	Cg73–Pg1–Ps228

	Cg73–Pg1–Ps229	Cg73–Pg1–Ps230	Cg73–Pg1–Ps231	Cg73–Pg1–Ps232
	Cg73–Pg1–Ps233	Cg73–Pg1–Ps234	Cg73–Pg1–Ps235	Cg73–Pg1–Ps236
	Cg73–Pg1–Ps237	Cg73–Pg1–Ps238	Cg73–Pg1–Ps239	Cg73–Pg1–Ps240
	Cg73–Pg1–Ps241	Cg73–Pg1–Ps242	Cg73–Pg1–Ps243	
5				
	Cg74–Pg1–Ps1	Cg74–Pg1–Ps2	Cg74–Pg1–Ps3	Cg74–Pg1–Ps4
	Cg74–Pg1–Ps5	Cg74–Pg1–Ps6	Cg74–Pg1–Ps7	Cg74–Pg1–Ps8
	Cg74–Pg1–Ps9	Cg74–Pg1–Ps10	Cg74–Pg1–Ps11	Cg74–Pg1–Ps12
	Cg74–Pg1–Ps13	Cg74–Pg1–Ps14	Cg74–Pg1–Ps15	Cg74–Pg1–Ps16
10	Cg74–Pg1–Ps17	Cg74–Pg1–Ps18	Cg74–Pg1–Ps19	Cg74–Pg1–Ps20
	Cg74–Pg1–Ps21	Cg74–Pg1–Ps22	Cg74–Pg1–Ps23	Cg74–Pg1–Ps24
	Cg74–Pg1–Ps25	Cg74–Pg1–Ps26	Cg74–Pg1–Ps27	Cg74–Pg1–Ps28
	Cg74–Pg1–Ps29	Cg74–Pg1–Ps30	Cg74–Pg1–Ps31	Cg74–Pg1–Ps32
	Cg74–Pg1–Ps33	Cg74–Pg1–Ps34	Cg74–Pg1–Ps35	Cg74–Pg1–Ps36
15	Cg74–Pg1–Ps37	Cg74–Pg1–Ps38	Cg74–Pg1–Ps39	Cg74–Pg1–Ps40
	Cg74–Pg1–Ps41	Cg74–Pg1–Ps42	Cg74–Pg1–Ps43	Cg74–Pg1–Ps44
	Cg74–Pg1–Ps45	Cg74–Pg1–Ps46	Cg74–Pg1–Ps47	Cg74–Pg1–Ps48
	Cg74–Pg1–Ps49	Cg74–Pg1–Ps50	Cg74–Pg1–Ps51	Cg74–Pg1–Ps52
	Cg74–Pg1–Ps53	Cg74–Pg1–Ps54	Cg74–Pg1–Ps55	Cg74–Pg1–Ps56
20	Cg74–Pg1–Ps57	Cg74–Pg1–Ps58	Cg74–Pg1–Ps59	Cg74–Pg1–Ps60
	Cg74–Pg1–Ps61	Cg74–Pg1–Ps62	Cg74–Pg1–Ps63	Cg74–Pg1–Ps64
	Cg74–Pg1–Ps65	Cg74–Pg1–Ps66	Cg74–Pg1–Ps67	Cg74–Pg1–Ps68
	Cg74–Pg1–Ps69	Cg74–Pg1–Ps70	Cg74–Pg1–Ps71	Cg74–Pg1–Ps72
	Cg74–Pg1–Ps73	Cg74–Pg1–Ps74	Cg74–Pg1–Ps75	Cg74–Pg1–Ps76
25	Cg74–Pg1–Ps77	Cg74–Pg1–Ps78	Cg74–Pg1–Ps79	Cg74–Pg1–Ps80
	Cg74–Pg1–Ps81	Cg74–Pg1–Ps82	Cg74–Pg1–Ps83	Cg74–Pg1–Ps84
	Cg74–Pg1–Ps85	Cg74–Pg1–Ps86	Cg74–Pg1–Ps87	Cg74–Pg1–Ps88
	Cg74–Pg1–Ps89	Cg74–Pg1–Ps90	Cg74–Pg1–Ps91	Cg74–Pg1–Ps92
	Cg74–Pg1–Ps93	Cg74–Pg1–Ps94	Cg74–Pg1–Ps95	Cg74–Pg1–Ps96
30	Cg74–Pg1–Ps97	Cg74–Pg1–Ps98	Cg74–Pg1–Ps99	Cg74–Pg1–Ps100
	Cg74–Pg1–Ps101	Cg74–Pg1–Ps102	Cg74–Pg1–Ps103	Cg74–Pg1–Ps104
	Cg74–Pg1–Ps105	Cg74–Pg1–Ps106	Cg74–Pg1–Ps107	Cg74–Pg1–Ps108
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	Cg74–Pg1–Ps113	Cg74–Pg1–Ps114	Cg74–Pg1–Ps115	Cg74–Pg1–Ps116
35	Cg74–Pg1–Ps117	Cg74–Pg1–Ps118	Cg74–Pg1–Ps119	Cg74–Pg1–Ps120
	Cg74–Pg1–Ps121	Cg74–Pg1–Ps122	Cg74–Pg1–Ps123	Cg74–Pg1–Ps124
	Cg74–Pg1–Ps125	Cg74–Pg1–Ps126	Cg74–Pg1–Ps127	Cg74–Pg1–Ps128
	Cg74–Pg1–Ps129	Cg74–Pg1–Ps130	Cg74–Pg1–Ps131	Cg74–Pg1–Ps132
	Cg74–Pg1–Ps133	Cg74–Pg1–Ps134	Cg74–Pg1–Ps135	Cg74–Pg1–Ps136
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	Cg74–Pg1–Ps141	Cg74–Pg1–Ps142	Cg74–Pg1–Ps143	Cg74–Pg1–Ps144
	Cg74–Pg1–Ps145	Cg74–Pg1–Ps146	Cg74–Pg1–Ps147	Cg74–Pg1–Ps148
	Cg74–Pg1–Ps149	Cg74–Pg1–Ps150	Cg74–Pg1–Ps151	Cg74–Pg1–Ps152
	Cg74–Pg1–Ps153	Cg74–Pg1–Ps154	Cg74–Pg1–Ps155	Cg74–Pg1–Ps156
45	Cg74–Pg1–Ps157	Cg74–Pg1–Ps158	Cg74–Pg1–Ps159	Cg74–Pg1–Ps160
	Cg74–Pg1–Ps161	Cg74–Pg1–Ps162	Cg74–Pg1–Ps163	Cg74–Pg1–Ps164
	Cg74–Pg1–Ps165	Cg74–Pg1–Ps166	Cg74–Pg1–Ps167	Cg74–Pg1–Ps168
	Cg74–Pg1–Ps169	Cg74–Pg1–Ps170	Cg74–Pg1–Ps171	Cg74–Pg1–Ps172
	Cg74–Pg1–Ps173	Cg74–Pg1–Ps174	Cg74–Pg1–Ps175	Cg74–Pg1–Ps176
50	Cg74–Pg1–Ps177	Cg74–Pg1–Ps178	Cg74–Pg1–Ps179	Cg74–Pg1–Ps180
	Cg74–Pg1–Ps181	Cg74–Pg1–Ps182	Cg74–Pg1–Ps183	Cg74–Pg1–Ps184
	Cg74–Pg1–Ps185	Cg74–Pg1–Ps186	Cg74–Pg1–Ps187	Cg74–Pg1–Ps188

	Cg74–Pg1–Ps189	Cg74–Pg1–Ps190	Cg74–Pg1–Ps191	Cg74–Pg1–Ps192
	Cg74–Pg1–Ps193	Cg74–Pg1–Ps194	Cg74–Pg1–Ps195	Cg74–Pg1–Ps196
	Cg74–Pg1–Ps197	Cg74–Pg1–Ps198	Cg74–Pg1–Ps199	Cg74–Pg1–Ps200
	Cg74–Pg1–Ps201	Cg74–Pg1–Ps202	Cg74–Pg1–Ps203	Cg74–Pg1–Ps204
5	Cg74–Pg1–Ps205	Cg74–Pg1–Ps206	Cg74–Pg1–Ps207	Cg74–Pg1–Ps208
	Cg74–Pg1–Ps209	Cg74–Pg1–Ps210	Cg74–Pg1–Ps211	Cg74–Pg1–Ps212
	Cg74–Pg1–Ps213	Cg74–Pg1–Ps214	Cg74–Pg1–Ps215	Cg74–Pg1–Ps216
	Cg74–Pg1–Ps217	Cg74–Pg1–Ps218	Cg74–Pg1–Ps219	Cg74–Pg1–Ps220
	Cg74–Pg1–Ps221	Cg74–Pg1–Ps222	Cg74–Pg1–Ps223	Cg74–Pg1–Ps224
10	Cg74–Pg1–Ps225	Cg74–Pg1–Ps226	Cg74–Pg1–Ps227	Cg74–Pg1–Ps228
	Cg74–Pg1–Ps229	Cg74–Pg1–Ps230	Cg74–Pg1–Ps231	Cg74–Pg1–Ps232
	Cg74–Pg1–Ps233	Cg74–Pg1–Ps234	Cg74–Pg1–Ps235	Cg74–Pg1–Ps236
	Cg74–Pg1–Ps237	Cg74–Pg1–Ps238	Cg74–Pg1–Ps239	Cg74–Pg1–Ps240
	Cg74–Pg1–Ps241	Cg74–Pg1–Ps242	Cg74–Pg1–Ps243	
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	Cg75–Pg1–Ps5	Cg75–Pg1–Ps6	Cg75–Pg1–Ps7	Cg75–Pg1–Ps8
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	Cg75–Pg1–Ps13	Cg75–Pg1–Ps14	Cg75–Pg1–Ps15	Cg75–Pg1–Ps16
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	Cg75–Pg1–Ps21	Cg75–Pg1–Ps22	Cg75–Pg1–Ps23	Cg75–Pg1–Ps24
	Cg75–Pg1–Ps25	Cg75–Pg1–Ps26	Cg75–Pg1–Ps27	Cg75–Pg1–Ps28
	Cg75–Pg1–Ps29	Cg75–Pg1–Ps30	Cg75–Pg1–Ps31	Cg75–Pg1–Ps32
	Cg75–Pg1–Ps33	Cg75–Pg1–Ps34	Cg75–Pg1–Ps35	Cg75–Pg1–Ps36
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	Cg75–Pg1–Ps41	Cg75–Pg1–Ps42	Cg75–Pg1–Ps43	Cg75–Pg1–Ps44
	Cg75–Pg1–Ps45	Cg75–Pg1–Ps46	Cg75–Pg1–Ps47	Cg75–Pg1–Ps48
	Cg75–Pg1–Ps49	Cg75–Pg1–Ps50	Cg75–Pg1–Ps51	Cg75–Pg1–Ps52
	Cg75–Pg1–Ps53	Cg75–Pg1–Ps54	Cg75–Pg1–Ps55	Cg75–Pg1–Ps56
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	Cg75–Pg1–Ps61	Cg75–Pg1–Ps62	Cg75–Pg1–Ps63	Cg75–Pg1–Ps64
	Cg75–Pg1–Ps65	Cg75–Pg1–Ps66	Cg75–Pg1–Ps67	Cg75–Pg1–Ps68
	Cg75–Pg1–Ps69	Cg75–Pg1–Ps70	Cg75–Pg1–Ps71	Cg75–Pg1–Ps72
	Cg75–Pg1–Ps73	Cg75–Pg1–Ps74	Cg75–Pg1–Ps75	Cg75–Pg1–Ps76
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	Cg75–Pg1–Ps81	Cg75–Pg1–Ps82	Cg75–Pg1–Ps83	Cg75–Pg1–Ps84
	Cg75–Pg1–Ps85	Cg75–Pg1–Ps86	Cg75–Pg1–Ps87	Cg75–Pg1–Ps88
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	Cg75–Pg1–Ps101	Cg75–Pg1–Ps102	Cg75–Pg1–Ps103	Cg75–Pg1–Ps104
	Cg75–Pg1–Ps105	Cg75–Pg1–Ps106	Cg75–Pg1–Ps107	Cg75–Pg1–Ps108
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	Cg75–Pg1–Ps121	Cg75–Pg1–Ps122	Cg75–Pg1–Ps123	Cg75–Pg1–Ps124
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	Cg75–Pg1–Ps141	Cg75–Pg1–Ps142	Cg75–Pg1–Ps143	Cg75–Pg1–Ps144
	Cg75–Pg1–Ps145	Cg75–Pg1–Ps146	Cg75–Pg1–Ps147	Cg75–Pg1–Ps148

Cg75–Pg1–Ps149	Cg75–Pg1–Ps150	Cg75–Pg1–Ps151	Cg75–Pg1–Ps152
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Cg75–Pg1–Ps157	Cg75–Pg1–Ps158	Cg75–Pg1–Ps159	Cg75–Pg1–Ps160
Cg75–Pg1–Ps161	Cg75–Pg1–Ps162	Cg75–Pg1–Ps163	Cg75–Pg1–Ps164
Cg75–Pg1–Ps165	Cg75–Pg1–Ps166	Cg75–Pg1–Ps167	Cg75–Pg1–Ps168
Cg75–Pg1–Ps169	Cg75–Pg1–Ps170	Cg75–Pg1–Ps171	Cg75–Pg1–Ps172
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Cg75–Pg1–Ps185	Cg75–Pg1–Ps186	Cg75–Pg1–Ps187	Cg75–Pg1–Ps188
Cg75–Pg1–Ps189	Cg75–Pg1–Ps190	Cg75–Pg1–Ps191	Cg75–Pg1–Ps192
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Cg75–Pg1–Ps201	Cg75–Pg1–Ps202	Cg75–Pg1–Ps203	Cg75–Pg1–Ps204
Cg75–Pg1–Ps205	Cg75–Pg1–Ps206	Cg75–Pg1–Ps207	Cg75–Pg1–Ps208
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Cg75–Pg1–Ps217	Cg75–Pg1–Ps218	Cg75–Pg1–Ps219	Cg75–Pg1–Ps220
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Cg75–Pg1–Ps233	Cg75–Pg1–Ps234	Cg75–Pg1–Ps235	Cg75–Pg1–Ps236
Cg75–Pg1–Ps237	Cg75–Pg1–Ps238	Cg75–Pg1–Ps239	Cg75–Pg1–Ps240
Cg75–Pg1–Ps241	Cg75–Pg1–Ps242	Cg75–Pg1–Ps243	

Cg76–Pg1–Ps1	Cg76–Pg1–Ps2	Cg76–Pg1–Ps3	Cg76–Pg1–Ps4
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Cg76–Pg1–Ps13	Cg76–Pg1–Ps14	Cg76–Pg1–Ps15	Cg76–Pg1–Ps16
Cg76–Pg1–Ps17	Cg76–Pg1–Ps18	Cg76–Pg1–Ps19	Cg76–Pg1–Ps20
Cg76–Pg1–Ps21	Cg76–Pg1–Ps22	Cg76–Pg1–Ps23	Cg76–Pg1–Ps24
Cg76–Pg1–Ps25	Cg76–Pg1–Ps26	Cg76–Pg1–Ps27	Cg76–Pg1–Ps28
Cg76–Pg1–Ps29	Cg76–Pg1–Ps30	Cg76–Pg1–Ps31	Cg76–Pg1–Ps32
Cg76–Pg1–Ps33	Cg76–Pg1–Ps34	Cg76–Pg1–Ps35	Cg76–Pg1–Ps36
Cg76–Pg1–Ps37	Cg76–Pg1–Ps38	Cg76–Pg1–Ps39	Cg76–Pg1–Ps40
Cg76–Pg1–Ps41	Cg76–Pg1–Ps42	Cg76–Pg1–Ps43	Cg76–Pg1–Ps44
Cg76–Pg1–Ps45	Cg76–Pg1–Ps46	Cg76–Pg1–Ps47	Cg76–Pg1–Ps48
Cg76–Pg1–Ps49	Cg76–Pg1–Ps50	Cg76–Pg1–Ps51	Cg76–Pg1–Ps52
Cg76–Pg1–Ps53	Cg76–Pg1–Ps54	Cg76–Pg1–Ps55	Cg76–Pg1–Ps56
Cg76–Pg1–Ps57	Cg76–Pg1–Ps58	Cg76–Pg1–Ps59	Cg76–Pg1–Ps60
Cg76–Pg1–Ps61	Cg76–Pg1–Ps62	Cg76–Pg1–Ps63	Cg76–Pg1–Ps64
Cg76–Pg1–Ps65	Cg76–Pg1–Ps66	Cg76–Pg1–Ps67	Cg76–Pg1–Ps68
Cg76–Pg1–Ps69	Cg76–Pg1–Ps70	Cg76–Pg1–Ps71	Cg76–Pg1–Ps72
Cg76–Pg1–Ps73	Cg76–Pg1–Ps74	Cg76–Pg1–Ps75	Cg76–Pg1–Ps76
Cg76–Pg1–Ps77	Cg76–Pg1–Ps78	Cg76–Pg1–Ps79	Cg76–Pg1–Ps80
Cg76–Pg1–Ps81	Cg76–Pg1–Ps82	Cg76–Pg1–Ps83	Cg76–Pg1–Ps84
Cg76–Pg1–Ps85	Cg76–Pg1–Ps86	Cg76–Pg1–Ps87	Cg76–Pg1–Ps88
Cg76–Pg1–Ps89	Cg76–Pg1–Ps90	Cg76–Pg1–Ps91	Cg76–Pg1–Ps92
Cg76–Pg1–Ps93	Cg76–Pg1–Ps94	Cg76–Pg1–Ps95	Cg76–Pg1–Ps96
Cg76–Pg1–Ps97	Cg76–Pg1–Ps98	Cg76–Pg1–Ps99	Cg76–Pg1–Ps100
Cg76–Pg1–Ps101	Cg76–Pg1–Ps102	Cg76–Pg1–Ps103	Cg76–Pg1–Ps104
Cg76–Pg1–Ps105	Cg76–Pg1–Ps106	Cg76–Pg1–Ps107	Cg76–Pg1–Ps108

Cg76–Pg1–Ps109	Cg76–Pg1–Ps110	Cg76–Pg1–Ps111	Cg76–Pg1–Ps112
Cg76–Pg1–Ps113	Cg76–Pg1–Ps114	Cg76–Pg1–Ps115	Cg76–Pg1–Ps116
Cg76–Pg1–Ps117	Cg76–Pg1–Ps118	Cg76–Pg1–Ps119	Cg76–Pg1–Ps120
Cg76–Pg1–Ps121	Cg76–Pg1–Ps122	Cg76–Pg1–Ps123	Cg76–Pg1–Ps124
Cg76–Pg1–Ps125	Cg76–Pg1–Ps126	Cg76–Pg1–Ps127	Cg76–Pg1–Ps128
Cg76–Pg1–Ps129	Cg76–Pg1–Ps130	Cg76–Pg1–Ps131	Cg76–Pg1–Ps132
Cg76–Pg1–Ps133	Cg76–Pg1–Ps134	Cg76–Pg1–Ps135	Cg76–Pg1–Ps136
Cg76–Pg1–Ps137	Cg76–Pg1–Ps138	Cg76–Pg1–Ps139	Cg76–Pg1–Ps140
Cg76–Pg1–Ps141	Cg76–Pg1–Ps142	Cg76–Pg1–Ps143	Cg76–Pg1–Ps144
Cg76–Pg1–Ps145	Cg76–Pg1–Ps146	Cg76–Pg1–Ps147	Cg76–Pg1–Ps148
Cg76–Pg1–Ps149	Cg76–Pg1–Ps150	Cg76–Pg1–Ps151	Cg76–Pg1–Ps152
Cg76–Pg1–Ps153	Cg76–Pg1–Ps154	Cg76–Pg1–Ps155	Cg76–Pg1–Ps156
Cg76–Pg1–Ps157	Cg76–Pg1–Ps158	Cg76–Pg1–Ps159	Cg76–Pg1–Ps160
Cg76–Pg1–Ps161	Cg76–Pg1–Ps162	Cg76–Pg1–Ps163	Cg76–Pg1–Ps164
Cg76–Pg1–Ps165	Cg76–Pg1–Ps166	Cg76–Pg1–Ps167	Cg76–Pg1–Ps168
Cg76–Pg1–Ps169	Cg76–Pg1–Ps170	Cg76–Pg1–Ps171	Cg76–Pg1–Ps172
Cg76–Pg1–Ps173	Cg76–Pg1–Ps174	Cg76–Pg1–Ps175	Cg76–Pg1–Ps176
Cg76–Pg1–Ps177	Cg76–Pg1–Ps178	Cg76–Pg1–Ps179	Cg76–Pg1–Ps180
Cg76–Pg1–Ps181	Cg76–Pg1–Ps182	Cg76–Pg1–Ps183	Cg76–Pg1–Ps184
Cg76–Pg1–Ps185	Cg76–Pg1–Ps186	Cg76–Pg1–Ps187	Cg76–Pg1–Ps188
Cg76–Pg1–Ps189	Cg76–Pg1–Ps190	Cg76–Pg1–Ps191	Cg76–Pg1–Ps192
Cg76–Pg1–Ps193	Cg76–Pg1–Ps194	Cg76–Pg1–Ps195	Cg76–Pg1–Ps196
Cg76–Pg1–Ps197	Cg76–Pg1–Ps198	Cg76–Pg1–Ps199	Cg76–Pg1–Ps200
Cg76–Pg1–Ps201	Cg76–Pg1–Ps202	Cg76–Pg1–Ps203	Cg76–Pg1–Ps204
Cg76–Pg1–Ps205	Cg76–Pg1–Ps206	Cg76–Pg1–Ps207	Cg76–Pg1–Ps208
Cg76–Pg1–Ps209	Cg76–Pg1–Ps210	Cg76–Pg1–Ps211	Cg76–Pg1–Ps212
Cg76–Pg1–Ps213	Cg76–Pg1–Ps214	Cg76–Pg1–Ps215	Cg76–Pg1–Ps216
Cg76–Pg1–Ps217	Cg76–Pg1–Ps218	Cg76–Pg1–Ps219	Cg76–Pg1–Ps220
Cg76–Pg1–Ps221	Cg76–Pg1–Ps222	Cg76–Pg1–Ps223	Cg76–Pg1–Ps224
Cg76–Pg1–Ps225	Cg76–Pg1–Ps226	Cg76–Pg1–Ps227	Cg76–Pg1–Ps228
Cg76–Pg1–Ps229	Cg76–Pg1–Ps230	Cg76–Pg1–Ps231	Cg76–Pg1–Ps232
Cg76–Pg1–Ps233	Cg76–Pg1–Ps234	Cg76–Pg1–Ps235	Cg76–Pg1–Ps236
Cg76–Pg1–Ps237	Cg76–Pg1–Ps238	Cg76–Pg1–Ps239	Cg76–Pg1–Ps240
Cg76–Pg1–Ps241	Cg76–Pg1–Ps242	Cg76–Pg1–Ps243	

Cg81–Pg1–Ps1	Cg81–Pg1–Ps2	Cg81–Pg1–Ps3	Cg81–Pg1–Ps4
Cg81–Pg1–Ps5	Cg81–Pg1–Ps6	Cg81–Pg1–Ps7	Cg81–Pg1–Ps8
Cg81–Pg1–Ps9	Cg81–Pg1–Ps10	Cg81–Pg1–Ps11	Cg81–Pg1–Ps12
Cg81–Pg1–Ps13	Cg81–Pg1–Ps14	Cg81–Pg1–Ps15	Cg81–Pg1–Ps16
Cg81–Pg1–Ps17	Cg81–Pg1–Ps18	Cg81–Pg1–Ps19	Cg81–Pg1–Ps20
Cg81–Pg1–Ps21	Cg81–Pg1–Ps22	Cg81–Pg1–Ps23	Cg81–Pg1–Ps24
Cg81–Pg1–Ps25	Cg81–Pg1–Ps26	Cg81–Pg1–Ps27	Cg81–Pg1–Ps28
Cg81–Pg1–Ps29	Cg81–Pg1–Ps30	Cg81–Pg1–Ps31	Cg81–Pg1–Ps32
Cg81–Pg1–Ps33	Cg81–Pg1–Ps34	Cg81–Pg1–Ps35	Cg81–Pg1–Ps36
Cg81–Pg1–Ps37	Cg81–Pg1–Ps38	Cg81–Pg1–Ps39	Cg81–Pg1–Ps40
Cg81–Pg1–Ps41	Cg81–Pg1–Ps42	Cg81–Pg1–Ps43	Cg81–Pg1–Ps44
Cg81–Pg1–Ps45	Cg81–Pg1–Ps46	Cg81–Pg1–Ps47	Cg81–Pg1–Ps48
Cg81–Pg1–Ps49	Cg81–Pg1–Ps50	Cg81–Pg1–Ps51	Cg81–Pg1–Ps52
Cg81–Pg1–Ps53	Cg81–Pg1–Ps54	Cg81–Pg1–Ps55	Cg81–Pg1–Ps56
Cg81–Pg1–Ps57	Cg81–Pg1–Ps58	Cg81–Pg1–Ps59	Cg81–Pg1–Ps60
Cg81–Pg1–Ps61	Cg81–Pg1–Ps62	Cg81–Pg1–Ps63	Cg81–Pg1–Ps64
Cg81–Pg1–Ps65	Cg81–Pg1–Ps66	Cg81–Pg1–Ps67	Cg81–Pg1–Ps68

	Cg81–Pg1–Ps69	Cg81–Pg1–Ps70	Cg81–Pg1–Ps71	Cg81–Pg1–Ps72
	Cg81–Pg1–Ps73	Cg81–Pg1–Ps74	Cg81–Pg1–Ps75	Cg81–Pg1–Ps76
	Cg81–Pg1–Ps77	Cg81–Pg1–Ps78	Cg81–Pg1–Ps79	Cg81–Pg1–Ps80
	Cg81–Pg1–Ps81	Cg81–Pg1–Ps82	Cg81–Pg1–Ps83	Cg81–Pg1–Ps84
5	Cg81–Pg1–Ps85	Cg81–Pg1–Ps86	Cg81–Pg1–Ps87	Cg81–Pg1–Ps88
	Cg81–Pg1–Ps89	Cg81–Pg1–Ps90	Cg81–Pg1–Ps91	Cg81–Pg1–Ps92
	Cg81–Pg1–Ps93	Cg81–Pg1–Ps94	Cg81–Pg1–Ps95	Cg81–Pg1–Ps96
	Cg81–Pg1–Ps97	Cg81–Pg1–Ps98	Cg81–Pg1–Ps99	Cg81–Pg1–Ps100
	Cg81–Pg1–Ps101	Cg81–Pg1–Ps102	Cg81–Pg1–Ps103	Cg81–Pg1–Ps104
10	Cg81–Pg1–Ps105	Cg81–Pg1–Ps106	Cg81–Pg1–Ps107	Cg81–Pg1–Ps108
	Cg81–Pg1–Ps109	Cg81–Pg1–Ps110	Cg81–Pg1–Ps111	Cg81–Pg1–Ps112
	Cg81–Pg1–Ps113	Cg81–Pg1–Ps114	Cg81–Pg1–Ps115	Cg81–Pg1–Ps116
	Cg81–Pg1–Ps117	Cg81–Pg1–Ps118	Cg81–Pg1–Ps119	Cg81–Pg1–Ps120
	Cg81–Pg1–Ps121	Cg81–Pg1–Ps122	Cg81–Pg1–Ps123	Cg81–Pg1–Ps124
15	Cg81–Pg1–Ps125	Cg81–Pg1–Ps126	Cg81–Pg1–Ps127	Cg81–Pg1–Ps128
	Cg81–Pg1–Ps129	Cg81–Pg1–Ps130	Cg81–Pg1–Ps131	Cg81–Pg1–Ps132
	Cg81–Pg1–Ps133	Cg81–Pg1–Ps134	Cg81–Pg1–Ps135	Cg81–Pg1–Ps136
	Cg81–Pg1–Ps137	Cg81–Pg1–Ps138	Cg81–Pg1–Ps139	Cg81–Pg1–Ps140
	Cg81–Pg1–Ps141	Cg81–Pg1–Ps142	Cg81–Pg1–Ps143	Cg81–Pg1–Ps144
20	Cg81–Pg1–Ps145	Cg81–Pg1–Ps146	Cg81–Pg1–Ps147	Cg81–Pg1–Ps148
	Cg81–Pg1–Ps149	Cg81–Pg1–Ps150	Cg81–Pg1–Ps151	Cg81–Pg1–Ps152
	Cg81–Pg1–Ps153	Cg81–Pg1–Ps154	Cg81–Pg1–Ps155	Cg81–Pg1–Ps156
	Cg81–Pg1–Ps157	Cg81–Pg1–Ps158	Cg81–Pg1–Ps159	Cg81–Pg1–Ps160
	Cg81–Pg1–Ps161	Cg81–Pg1–Ps162	Cg81–Pg1–Ps163	Cg81–Pg1–Ps164
25	Cg81–Pg1–Ps165	Cg81–Pg1–Ps166	Cg81–Pg1–Ps167	Cg81–Pg1–Ps168
	Cg81–Pg1–Ps169	Cg81–Pg1–Ps170	Cg81–Pg1–Ps171	Cg81–Pg1–Ps172
	Cg81–Pg1–Ps173	Cg81–Pg1–Ps174	Cg81–Pg1–Ps175	Cg81–Pg1–Ps176
	Cg81–Pg1–Ps177	Cg81–Pg1–Ps178	Cg81–Pg1–Ps179	Cg81–Pg1–Ps180
	Cg81–Pg1–Ps181	Cg81–Pg1–Ps182	Cg81–Pg1–Ps183	Cg81–Pg1–Ps184
30	Cg81–Pg1–Ps185	Cg81–Pg1–Ps186	Cg81–Pg1–Ps187	Cg81–Pg1–Ps188
	Cg81–Pg1–Ps189	Cg81–Pg1–Ps190	Cg81–Pg1–Ps191	Cg81–Pg1–Ps192
	Cg81–Pg1–Ps193	Cg81–Pg1–Ps194	Cg81–Pg1–Ps195	Cg81–Pg1–Ps196
	Cg81–Pg1–Ps197	Cg81–Pg1–Ps198	Cg81–Pg1–Ps199	Cg81–Pg1–Ps200
	Cg81–Pg1–Ps201	Cg81–Pg1–Ps202	Cg81–Pg1–Ps203	Cg81–Pg1–Ps204
35	Cg81–Pg1–Ps205	Cg81–Pg1–Ps206	Cg81–Pg1–Ps207	Cg81–Pg1–Ps208
	Cg81–Pg1–Ps209	Cg81–Pg1–Ps210	Cg81–Pg1–Ps211	Cg81–Pg1–Ps212
	Cg81–Pg1–Ps213	Cg81–Pg1–Ps214	Cg81–Pg1–Ps215	Cg81–Pg1–Ps216
	Cg81–Pg1–Ps217	Cg81–Pg1–Ps218	Cg81–Pg1–Ps219	Cg81–Pg1–Ps220
	Cg81–Pg1–Ps221	Cg81–Pg1–Ps222	Cg81–Pg1–Ps223	Cg81–Pg1–Ps224
40	Cg81–Pg1–Ps225	Cg81–Pg1–Ps226	Cg81–Pg1–Ps227	Cg81–Pg1–Ps228
	Cg81–Pg1–Ps229	Cg81–Pg1–Ps230	Cg81–Pg1–Ps231	Cg81–Pg1–Ps232
	Cg81–Pg1–Ps233	Cg81–Pg1–Ps234	Cg81–Pg1–Ps235	Cg81–Pg1–Ps236
	Cg81–Pg1–Ps237	Cg81–Pg1–Ps238	Cg81–Pg1–Ps239	Cg81–Pg1–Ps240
	Cg81–Pg1–Ps241	Cg81–Pg1–Ps242	Cg81–Pg1–Ps243	
45				
	Cg82–Pg1–Ps1	Cg82–Pg1–Ps2	Cg82–Pg1–Ps3	Cg82–Pg1–Ps4
	Cg82–Pg1–Ps5	Cg82–Pg1–Ps6	Cg82–Pg1–Ps7	Cg82–Pg1–Ps8
	Cg82–Pg1–Ps9	Cg82–Pg1–Ps10	Cg82–Pg1–Ps11	Cg82–Pg1–Ps12
	Cg82–Pg1–Ps13	Cg82–Pg1–Ps14	Cg82–Pg1–Ps15	Cg82–Pg1–Ps16
50	Cg82–Pg1–Ps17	Cg82–Pg1–Ps18	Cg82–Pg1–Ps19	Cg82–Pg1–Ps20
	Cg82–Pg1–Ps21	Cg82–Pg1–Ps22	Cg82–Pg1–Ps23	Cg82–Pg1–Ps24
	Cg82–Pg1–Ps25	Cg82–Pg1–Ps26	Cg82–Pg1–Ps27	Cg82–Pg1–Ps28

	Cg82–Pg1–Ps29	Cg82–Pg1–Ps30	Cg82–Pg1–Ps31	Cg82–Pg1–Ps32
	Cg82–Pg1–Ps33	Cg82–Pg1–Ps34	Cg82–Pg1–Ps35	Cg82–Pg1–Ps36
	Cg82–Pg1–Ps37	Cg82–Pg1–Ps38	Cg82–Pg1–Ps39	Cg82–Pg1–Ps40
	Cg82–Pg1–Ps41	Cg82–Pg1–Ps42	Cg82–Pg1–Ps43	Cg82–Pg1–Ps44
5	Cg82–Pg1–Ps45	Cg82–Pg1–Ps46	Cg82–Pg1–Ps47	Cg82–Pg1–Ps48
	Cg82–Pg1–Ps49	Cg82–Pg1–Ps50	Cg82–Pg1–Ps51	Cg82–Pg1–Ps52
	Cg82–Pg1–Ps53	Cg82–Pg1–Ps54	Cg82–Pg1–Ps55	Cg82–Pg1–Ps56
	Cg82–Pg1–Ps57	Cg82–Pg1–Ps58	Cg82–Pg1–Ps59	Cg82–Pg1–Ps60
	Cg82–Pg1–Ps61	Cg82–Pg1–Ps62	Cg82–Pg1–Ps63	Cg82–Pg1–Ps64
10	Cg82–Pg1–Ps65	Cg82–Pg1–Ps66	Cg82–Pg1–Ps67	Cg82–Pg1–Ps68
	Cg82–Pg1–Ps69	Cg82–Pg1–Ps70	Cg82–Pg1–Ps71	Cg82–Pg1–Ps72
	Cg82–Pg1–Ps73	Cg82–Pg1–Ps74	Cg82–Pg1–Ps75	Cg82–Pg1–Ps76
	Cg82–Pg1–Ps77	Cg82–Pg1–Ps78	Cg82–Pg1–Ps79	Cg82–Pg1–Ps80
	Cg82–Pg1–Ps81	Cg82–Pg1–Ps82	Cg82–Pg1–Ps83	Cg82–Pg1–Ps84
15	Cg82–Pg1–Ps85	Cg82–Pg1–Ps86	Cg82–Pg1–Ps87	Cg82–Pg1–Ps88
	Cg82–Pg1–Ps89	Cg82–Pg1–Ps90	Cg82–Pg1–Ps91	Cg82–Pg1–Ps92
	Cg82–Pg1–Ps93	Cg82–Pg1–Ps94	Cg82–Pg1–Ps95	Cg82–Pg1–Ps96
	Cg82–Pg1–Ps97	Cg82–Pg1–Ps98	Cg82–Pg1–Ps99	Cg82–Pg1–Ps100
	Cg82–Pg1–Ps101	Cg82–Pg1–Ps102	Cg82–Pg1–Ps103	Cg82–Pg1–Ps104
20	Cg82–Pg1–Ps105	Cg82–Pg1–Ps106	Cg82–Pg1–Ps107	Cg82–Pg1–Ps108
	Cg82–Pg1–Ps109	Cg82–Pg1–Ps110	Cg82–Pg1–Ps111	Cg82–Pg1–Ps112
	Cg82–Pg1–Ps113	Cg82–Pg1–Ps114	Cg82–Pg1–Ps115	Cg82–Pg1–Ps116
	Cg82–Pg1–Ps117	Cg82–Pg1–Ps118	Cg82–Pg1–Ps119	Cg82–Pg1–Ps120
	Cg82–Pg1–Ps121	Cg82–Pg1–Ps122	Cg82–Pg1–Ps123	Cg82–Pg1–Ps124
25	Cg82–Pg1–Ps125	Cg82–Pg1–Ps126	Cg82–Pg1–Ps127	Cg82–Pg1–Ps128
	Cg82–Pg1–Ps129	Cg82–Pg1–Ps130	Cg82–Pg1–Ps131	Cg82–Pg1–Ps132
	Cg82–Pg1–Ps133	Cg82–Pg1–Ps134	Cg82–Pg1–Ps135	Cg82–Pg1–Ps136
	Cg82–Pg1–Ps137	Cg82–Pg1–Ps138	Cg82–Pg1–Ps139	Cg82–Pg1–Ps140
	Cg82–Pg1–Ps141	Cg82–Pg1–Ps142	Cg82–Pg1–Ps143	Cg82–Pg1–Ps144
30	Cg82–Pg1–Ps145	Cg82–Pg1–Ps146	Cg82–Pg1–Ps147	Cg82–Pg1–Ps148
	Cg82–Pg1–Ps149	Cg82–Pg1–Ps150	Cg82–Pg1–Ps151	Cg82–Pg1–Ps152
	Cg82–Pg1–Ps153	Cg82–Pg1–Ps154	Cg82–Pg1–Ps155	Cg82–Pg1–Ps156
	Cg82–Pg1–Ps157	Cg82–Pg1–Ps158	Cg82–Pg1–Ps159	Cg82–Pg1–Ps160
	Cg82–Pg1–Ps161	Cg82–Pg1–Ps162	Cg82–Pg1–Ps163	Cg82–Pg1–Ps164
35	Cg82–Pg1–Ps165	Cg82–Pg1–Ps166	Cg82–Pg1–Ps167	Cg82–Pg1–Ps168
	Cg82–Pg1–Ps169	Cg82–Pg1–Ps170	Cg82–Pg1–Ps171	Cg82–Pg1–Ps172
	Cg82–Pg1–Ps173	Cg82–Pg1–Ps174	Cg82–Pg1–Ps175	Cg82–Pg1–Ps176
	Cg82–Pg1–Ps177	Cg82–Pg1–Ps178	Cg82–Pg1–Ps179	Cg82–Pg1–Ps180
	Cg82–Pg1–Ps181	Cg82–Pg1–Ps182	Cg82–Pg1–Ps183	Cg82–Pg1–Ps184
40	Cg82–Pg1–Ps185	Cg82–Pg1–Ps186	Cg82–Pg1–Ps187	Cg82–Pg1–Ps188
	Cg82–Pg1–Ps189	Cg82–Pg1–Ps190	Cg82–Pg1–Ps191	Cg82–Pg1–Ps192
	Cg82–Pg1–Ps193	Cg82–Pg1–Ps194	Cg82–Pg1–Ps195	Cg82–Pg1–Ps196
	Cg82–Pg1–Ps197	Cg82–Pg1–Ps198	Cg82–Pg1–Ps199	Cg82–Pg1–Ps200
	Cg82–Pg1–Ps201	Cg82–Pg1–Ps202	Cg82–Pg1–Ps203	Cg82–Pg1–Ps204
45	Cg82–Pg1–Ps205	Cg82–Pg1–Ps206	Cg82–Pg1–Ps207	Cg82–Pg1–Ps208
	Cg82–Pg1–Ps209	Cg82–Pg1–Ps210	Cg82–Pg1–Ps211	Cg82–Pg1–Ps212
	Cg82–Pg1–Ps213	Cg82–Pg1–Ps214	Cg82–Pg1–Ps215	Cg82–Pg1–Ps216
	Cg82–Pg1–Ps217	Cg82–Pg1–Ps218	Cg82–Pg1–Ps219	Cg82–Pg1–Ps220
	Cg82–Pg1–Ps221	Cg82–Pg1–Ps222	Cg82–Pg1–Ps223	Cg82–Pg1–Ps224
50	Cg82–Pg1–Ps225	Cg82–Pg1–Ps226	Cg82–Pg1–Ps227	Cg82–Pg1–Ps228
	Cg82–Pg1–Ps229	Cg82–Pg1–Ps230	Cg82–Pg1–Ps231	Cg82–Pg1–Ps232
	Cg82–Pg1–Ps233	Cg82–Pg1–Ps234	Cg82–Pg1–Ps235	Cg82–Pg1–Ps236

	Cg82–Pg1–Ps237	Cg82–Pg1–Ps238	Cg82–Pg1–Ps239	Cg82–Pg1–Ps240
	Cg82–Pg1–Ps241	Cg82–Pg1–Ps242	Cg82–Pg1–Ps243	
	Cg83–Pg1–Ps1	Cg83–Pg1–Ps2	Cg83–Pg1–Ps3	Cg83–Pg1–Ps4
	Cg83–Pg1–Ps5	Cg83–Pg1–Ps6	Cg83–Pg1–Ps7	Cg83–Pg1–Ps8
	Cg83–Pg1–Ps9	Cg83–Pg1–Ps10	Cg83–Pg1–Ps11	Cg83–Pg1–Ps12
	Cg83–Pg1–Ps13	Cg83–Pg1–Ps14	Cg83–Pg1–Ps15	Cg83–Pg1–Ps16
	Cg83–Pg1–Ps17	Cg83–Pg1–Ps18	Cg83–Pg1–Ps19	Cg83–Pg1–Ps20
	Cg83–Pg1–Ps21	Cg83–Pg1–Ps22	Cg83–Pg1–Ps23	Cg83–Pg1–Ps24
	Cg83–Pg1–Ps25	Cg83–Pg1–Ps26	Cg83–Pg1–Ps27	Cg83–Pg1–Ps28
	Cg83–Pg1–Ps29	Cg83–Pg1–Ps30	Cg83–Pg1–Ps31	Cg83–Pg1–Ps32
	Cg83–Pg1–Ps33	Cg83–Pg1–Ps34	Cg83–Pg1–Ps35	Cg83–Pg1–Ps36
	Cg83–Pg1–Ps37	Cg83–Pg1–Ps38	Cg83–Pg1–Ps39	Cg83–Pg1–Ps40
	Cg83–Pg1–Ps41	Cg83–Pg1–Ps42	Cg83–Pg1–Ps43	Cg83–Pg1–Ps44
	Cg83–Pg1–Ps45	Cg83–Pg1–Ps46	Cg83–Pg1–Ps47	Cg83–Pg1–Ps48
	Cg83–Pg1–Ps49	Cg83–Pg1–Ps50	Cg83–Pg1–Ps51	Cg83–Pg1–Ps52
	Cg83–Pg1–Ps53	Cg83–Pg1–Ps54	Cg83–Pg1–Ps55	Cg83–Pg1–Ps56
	Cg83–Pg1–Ps57	Cg83–Pg1–Ps58	Cg83–Pg1–Ps59	Cg83–Pg1–Ps60
	Cg83–Pg1–Ps61	Cg83–Pg1–Ps62	Cg83–Pg1–Ps63	Cg83–Pg1–Ps64
	Cg83–Pg1–Ps65	Cg83–Pg1–Ps66	Cg83–Pg1–Ps67	Cg83–Pg1–Ps68
	Cg83–Pg1–Ps69	Cg83–Pg1–Ps70	Cg83–Pg1–Ps71	Cg83–Pg1–Ps72
	Cg83–Pg1–Ps73	Cg83–Pg1–Ps74	Cg83–Pg1–Ps75	Cg83–Pg1–Ps76
	Cg83–Pg1–Ps77	Cg83–Pg1–Ps78	Cg83–Pg1–Ps79	Cg83–Pg1–Ps80
	Cg83–Pg1–Ps81	Cg83–Pg1–Ps82	Cg83–Pg1–Ps83	Cg83–Pg1–Ps84
	Cg83–Pg1–Ps85	Cg83–Pg1–Ps86	Cg83–Pg1–Ps87	Cg83–Pg1–Ps88
	Cg83–Pg1–Ps89	Cg83–Pg1–Ps90	Cg83–Pg1–Ps91	Cg83–Pg1–Ps92
	Cg83–Pg1–Ps93	Cg83–Pg1–Ps94	Cg83–Pg1–Ps95	Cg83–Pg1–Ps96
	Cg83–Pg1–Ps97	Cg83–Pg1–Ps98	Cg83–Pg1–Ps99	Cg83–Pg1–Ps100
	Cg83–Pg1–Ps101	Cg83–Pg1–Ps102	Cg83–Pg1–Ps103	Cg83–Pg1–Ps104
	Cg83–Pg1–Ps105	Cg83–Pg1–Ps106	Cg83–Pg1–Ps107	Cg83–Pg1–Ps108
	Cg83–Pg1–Ps109	Cg83–Pg1–Ps110	Cg83–Pg1–Ps111	Cg83–Pg1–Ps112
	Cg83–Pg1–Ps113	Cg83–Pg1–Ps114	Cg83–Pg1–Ps115	Cg83–Pg1–Ps116
	Cg83–Pg1–Ps117	Cg83–Pg1–Ps118	Cg83–Pg1–Ps119	Cg83–Pg1–Ps120
	Cg83–Pg1–Ps121	Cg83–Pg1–Ps122	Cg83–Pg1–Ps123	Cg83–Pg1–Ps124
	Cg83–Pg1–Ps125	Cg83–Pg1–Ps126	Cg83–Pg1–Ps127	Cg83–Pg1–Ps128
	Cg83–Pg1–Ps129	Cg83–Pg1–Ps130	Cg83–Pg1–Ps131	Cg83–Pg1–Ps132
	Cg83–Pg1–Ps133	Cg83–Pg1–Ps134	Cg83–Pg1–Ps135	Cg83–Pg1–Ps136
	Cg83–Pg1–Ps137	Cg83–Pg1–Ps138	Cg83–Pg1–Ps139	Cg83–Pg1–Ps140
	Cg83–Pg1–Ps141	Cg83–Pg1–Ps142	Cg83–Pg1–Ps143	Cg83–Pg1–Ps144
	Cg83–Pg1–Ps145	Cg83–Pg1–Ps146	Cg83–Pg1–Ps147	Cg83–Pg1–Ps148
	Cg83–Pg1–Ps149	Cg83–Pg1–Ps150	Cg83–Pg1–Ps151	Cg83–Pg1–Ps152
	Cg83–Pg1–Ps153	Cg83–Pg1–Ps154	Cg83–Pg1–Ps155	Cg83–Pg1–Ps156
	Cg83–Pg1–Ps157	Cg83–Pg1–Ps158	Cg83–Pg1–Ps159	Cg83–Pg1–Ps160
	Cg83–Pg1–Ps161	Cg83–Pg1–Ps162	Cg83–Pg1–Ps163	Cg83–Pg1–Ps164
	Cg83–Pg1–Ps165	Cg83–Pg1–Ps166	Cg83–Pg1–Ps167	Cg83–Pg1–Ps168
	Cg83–Pg1–Ps169	Cg83–Pg1–Ps170	Cg83–Pg1–Ps171	Cg83–Pg1–Ps172
	Cg83–Pg1–Ps173	Cg83–Pg1–Ps174	Cg83–Pg1–Ps175	Cg83–Pg1–Ps176
	Cg83–Pg1–Ps177	Cg83–Pg1–Ps178	Cg83–Pg1–Ps179	Cg83–Pg1–Ps180
	Cg83–Pg1–Ps181	Cg83–Pg1–Ps182	Cg83–Pg1–Ps183	Cg83–Pg1–Ps184
	Cg83–Pg1–Ps185	Cg83–Pg1–Ps186	Cg83–Pg1–Ps187	Cg83–Pg1–Ps188
	Cg83–Pg1–Ps189	Cg83–Pg1–Ps190	Cg83–Pg1–Ps191	Cg83–Pg1–Ps192

Cg83–Pg1–Ps193	Cg83–Pg1–Ps194	Cg83–Pg1–Ps195	Cg83–Pg1–Ps196
Cg83–Pg1–Ps197	Cg83–Pg1–Ps198	Cg83–Pg1–Ps199	Cg83–Pg1–Ps200
Cg83–Pg1–Ps201	Cg83–Pg1–Ps202	Cg83–Pg1–Ps203	Cg83–Pg1–Ps204
Cg83–Pg1–Ps205	Cg83–Pg1–Ps206	Cg83–Pg1–Ps207	Cg83–Pg1–Ps208
Cg83–Pg1–Ps209	Cg83–Pg1–Ps210	Cg83–Pg1–Ps211	Cg83–Pg1–Ps212
Cg83–Pg1–Ps213	Cg83–Pg1–Ps214	Cg83–Pg1–Ps215	Cg83–Pg1–Ps216
Cg83–Pg1–Ps217	Cg83–Pg1–Ps218	Cg83–Pg1–Ps219	Cg83–Pg1–Ps220
Cg83–Pg1–Ps221	Cg83–Pg1–Ps222	Cg83–Pg1–Ps223	Cg83–Pg1–Ps224
Cg83–Pg1–Ps225	Cg83–Pg1–Ps226	Cg83–Pg1–Ps227	Cg83–Pg1–Ps228
Cg83–Pg1–Ps229	Cg83–Pg1–Ps230	Cg83–Pg1–Ps231	Cg83–Pg1–Ps232
Cg83–Pg1–Ps233	Cg83–Pg1–Ps234	Cg83–Pg1–Ps235	Cg83–Pg1–Ps236
Cg83–Pg1–Ps237	Cg83–Pg1–Ps238	Cg83–Pg1–Ps239	Cg83–Pg1–Ps240
Cg83–Pg1–Ps241	Cg83–Pg1–Ps242	Cg83–Pg1–Ps243	

Cg84–Pg1–Ps1	Cg84–Pg1–Ps2	Cg84–Pg1–Ps3	Cg84–Pg1–Ps4
Cg84–Pg1–Ps5	Cg84–Pg1–Ps6	Cg84–Pg1–Ps7	Cg84–Pg1–Ps8
Cg84–Pg1–Ps9	Cg84–Pg1–Ps10	Cg84–Pg1–Ps11	Cg84–Pg1–Ps12
Cg84–Pg1–Ps13	Cg84–Pg1–Ps14	Cg84–Pg1–Ps15	Cg84–Pg1–Ps16
Cg84–Pg1–Ps17	Cg84–Pg1–Ps18	Cg84–Pg1–Ps19	Cg84–Pg1–Ps20
Cg84–Pg1–Ps21	Cg84–Pg1–Ps22	Cg84–Pg1–Ps23	Cg84–Pg1–Ps24
Cg84–Pg1–Ps25	Cg84–Pg1–Ps26	Cg84–Pg1–Ps27	Cg84–Pg1–Ps28
Cg84–Pg1–Ps29	Cg84–Pg1–Ps30	Cg84–Pg1–Ps31	Cg84–Pg1–Ps32
Cg84–Pg1–Ps33	Cg84–Pg1–Ps34	Cg84–Pg1–Ps35	Cg84–Pg1–Ps36
Cg84–Pg1–Ps37	Cg84–Pg1–Ps38	Cg84–Pg1–Ps39	Cg84–Pg1–Ps40
Cg84–Pg1–Ps41	Cg84–Pg1–Ps42	Cg84–Pg1–Ps43	Cg84–Pg1–Ps44
Cg84–Pg1–Ps45	Cg84–Pg1–Ps46	Cg84–Pg1–Ps47	Cg84–Pg1–Ps48
Cg84–Pg1–Ps49	Cg84–Pg1–Ps50	Cg84–Pg1–Ps51	Cg84–Pg1–Ps52
Cg84–Pg1–Ps53	Cg84–Pg1–Ps54	Cg84–Pg1–Ps55	Cg84–Pg1–Ps56
Cg84–Pg1–Ps57	Cg84–Pg1–Ps58	Cg84–Pg1–Ps59	Cg84–Pg1–Ps60
Cg84–Pg1–Ps61	Cg84–Pg1–Ps62	Cg84–Pg1–Ps63	Cg84–Pg1–Ps64
Cg84–Pg1–Ps65	Cg84–Pg1–Ps66	Cg84–Pg1–Ps67	Cg84–Pg1–Ps68
Cg84–Pg1–Ps69	Cg84–Pg1–Ps70	Cg84–Pg1–Ps71	Cg84–Pg1–Ps72
Cg84–Pg1–Ps73	Cg84–Pg1–Ps74	Cg84–Pg1–Ps75	Cg84–Pg1–Ps76
Cg84–Pg1–Ps77	Cg84–Pg1–Ps78	Cg84–Pg1–Ps79	Cg84–Pg1–Ps80
Cg84–Pg1–Ps81	Cg84–Pg1–Ps82	Cg84–Pg1–Ps83	Cg84–Pg1–Ps84
Cg84–Pg1–Ps85	Cg84–Pg1–Ps86	Cg84–Pg1–Ps87	Cg84–Pg1–Ps88
Cg84–Pg1–Ps89	Cg84–Pg1–Ps90	Cg84–Pg1–Ps91	Cg84–Pg1–Ps92
Cg84–Pg1–Ps93	Cg84–Pg1–Ps94	Cg84–Pg1–Ps95	Cg84–Pg1–Ps96
Cg84–Pg1–Ps97	Cg84–Pg1–Ps98	Cg84–Pg1–Ps99	Cg84–Pg1–Ps100
Cg84–Pg1–Ps101	Cg84–Pg1–Ps102	Cg84–Pg1–Ps103	Cg84–Pg1–Ps104
Cg84–Pg1–Ps105	Cg84–Pg1–Ps106	Cg84–Pg1–Ps107	Cg84–Pg1–Ps108
Cg84–Pg1–Ps109	Cg84–Pg1–Ps110	Cg84–Pg1–Ps111	Cg84–Pg1–Ps112
Cg84–Pg1–Ps113	Cg84–Pg1–Ps114	Cg84–Pg1–Ps115	Cg84–Pg1–Ps116
Cg84–Pg1–Ps117	Cg84–Pg1–Ps118	Cg84–Pg1–Ps119	Cg84–Pg1–Ps120
Cg84–Pg1–Ps121	Cg84–Pg1–Ps122	Cg84–Pg1–Ps123	Cg84–Pg1–Ps124
Cg84–Pg1–Ps125	Cg84–Pg1–Ps126	Cg84–Pg1–Ps127	Cg84–Pg1–Ps128
Cg84–Pg1–Ps129	Cg84–Pg1–Ps130	Cg84–Pg1–Ps131	Cg84–Pg1–Ps132
Cg84–Pg1–Ps133	Cg84–Pg1–Ps134	Cg84–Pg1–Ps135	Cg84–Pg1–Ps136
Cg84–Pg1–Ps137	Cg84–Pg1–Ps138	Cg84–Pg1–Ps139	Cg84–Pg1–Ps140
Cg84–Pg1–Ps141	Cg84–Pg1–Ps142	Cg84–Pg1–Ps143	Cg84–Pg1–Ps144
Cg84–Pg1–Ps145	Cg84–Pg1–Ps146	Cg84–Pg1–Ps147	Cg84–Pg1–Ps148
Cg84–Pg1–Ps149	Cg84–Pg1–Ps150	Cg84–Pg1–Ps151	Cg84–Pg1–Ps152

Cg84–Pg1–Ps153	Cg84–Pg1–Ps154	Cg84–Pg1–Ps155	Cg84–Pg1–Ps156
Cg84–Pg1–Ps157	Cg84–Pg1–Ps158	Cg84–Pg1–Ps159	Cg84–Pg1–Ps160
Cg84–Pg1–Ps161	Cg84–Pg1–Ps162	Cg84–Pg1–Ps163	Cg84–Pg1–Ps164
Cg84–Pg1–Ps165	Cg84–Pg1–Ps166	Cg84–Pg1–Ps167	Cg84–Pg1–Ps168
Cg84–Pg1–Ps169	Cg84–Pg1–Ps170	Cg84–Pg1–Ps171	Cg84–Pg1–Ps172
Cg84–Pg1–Ps173	Cg84–Pg1–Ps174	Cg84–Pg1–Ps175	Cg84–Pg1–Ps176
Cg84–Pg1–Ps177	Cg84–Pg1–Ps178	Cg84–Pg1–Ps179	Cg84–Pg1–Ps180
Cg84–Pg1–Ps181	Cg84–Pg1–Ps182	Cg84–Pg1–Ps183	Cg84–Pg1–Ps184
Cg84–Pg1–Ps185	Cg84–Pg1–Ps186	Cg84–Pg1–Ps187	Cg84–Pg1–Ps188
Cg84–Pg1–Ps189	Cg84–Pg1–Ps190	Cg84–Pg1–Ps191	Cg84–Pg1–Ps192
Cg84–Pg1–Ps193	Cg84–Pg1–Ps194	Cg84–Pg1–Ps195	Cg84–Pg1–Ps196
Cg84–Pg1–Ps197	Cg84–Pg1–Ps198	Cg84–Pg1–Ps199	Cg84–Pg1–Ps200
Cg84–Pg1–Ps201	Cg84–Pg1–Ps202	Cg84–Pg1–Ps203	Cg84–Pg1–Ps204
Cg84–Pg1–Ps205	Cg84–Pg1–Ps206	Cg84–Pg1–Ps207	Cg84–Pg1–Ps208
Cg84–Pg1–Ps209	Cg84–Pg1–Ps210	Cg84–Pg1–Ps211	Cg84–Pg1–Ps212
Cg84–Pg1–Ps213	Cg84–Pg1–Ps214	Cg84–Pg1–Ps215	Cg84–Pg1–Ps216
Cg84–Pg1–Ps217	Cg84–Pg1–Ps218	Cg84–Pg1–Ps219	Cg84–Pg1–Ps220
Cg84–Pg1–Ps221	Cg84–Pg1–Ps222	Cg84–Pg1–Ps223	Cg84–Pg1–Ps224
Cg84–Pg1–Ps225	Cg84–Pg1–Ps226	Cg84–Pg1–Ps227	Cg84–Pg1–Ps228
Cg84–Pg1–Ps229	Cg84–Pg1–Ps230	Cg84–Pg1–Ps231	Cg84–Pg1–Ps232
Cg84–Pg1–Ps233	Cg84–Pg1–Ps234	Cg84–Pg1–Ps235	Cg84–Pg1–Ps236
Cg84–Pg1–Ps237	Cg84–Pg1–Ps238	Cg84–Pg1–Ps239	Cg84–Pg1–Ps240
Cg84–Pg1–Ps241	Cg84–Pg1–Ps242	Cg84–Pg1–Ps243	

Cg85–Pg1–Ps1	Cg85–Pg1–Ps2	Cg85–Pg1–Ps3	Cg85–Pg1–Ps4
Cg85–Pg1–Ps5	Cg85–Pg1–Ps6	Cg85–Pg1–Ps7	Cg85–Pg1–Ps8
Cg85–Pg1–Ps9	Cg85–Pg1–Ps10	Cg85–Pg1–Ps11	Cg85–Pg1–Ps12
Cg85–Pg1–Ps13	Cg85–Pg1–Ps14	Cg85–Pg1–Ps15	Cg85–Pg1–Ps16
Cg85–Pg1–Ps17	Cg85–Pg1–Ps18	Cg85–Pg1–Ps19	Cg85–Pg1–Ps20
Cg85–Pg1–Ps21	Cg85–Pg1–Ps22	Cg85–Pg1–Ps23	Cg85–Pg1–Ps24
Cg85–Pg1–Ps25	Cg85–Pg1–Ps26	Cg85–Pg1–Ps27	Cg85–Pg1–Ps28
Cg85–Pg1–Ps29	Cg85–Pg1–Ps30	Cg85–Pg1–Ps31	Cg85–Pg1–Ps32
Cg85–Pg1–Ps33	Cg85–Pg1–Ps34	Cg85–Pg1–Ps35	Cg85–Pg1–Ps36
Cg85–Pg1–Ps37	Cg85–Pg1–Ps38	Cg85–Pg1–Ps39	Cg85–Pg1–Ps40
Cg85–Pg1–Ps41	Cg85–Pg1–Ps42	Cg85–Pg1–Ps43	Cg85–Pg1–Ps44
Cg85–Pg1–Ps45	Cg85–Pg1–Ps46	Cg85–Pg1–Ps47	Cg85–Pg1–Ps48
Cg85–Pg1–Ps49	Cg85–Pg1–Ps50	Cg85–Pg1–Ps51	Cg85–Pg1–Ps52
Cg85–Pg1–Ps53	Cg85–Pg1–Ps54	Cg85–Pg1–Ps55	Cg85–Pg1–Ps56
Cg85–Pg1–Ps57	Cg85–Pg1–Ps58	Cg85–Pg1–Ps59	Cg85–Pg1–Ps60
Cg85–Pg1–Ps61	Cg85–Pg1–Ps62	Cg85–Pg1–Ps63	Cg85–Pg1–Ps64
Cg85–Pg1–Ps65	Cg85–Pg1–Ps66	Cg85–Pg1–Ps67	Cg85–Pg1–Ps68
Cg85–Pg1–Ps69	Cg85–Pg1–Ps70	Cg85–Pg1–Ps71	Cg85–Pg1–Ps72
Cg85–Pg1–Ps73	Cg85–Pg1–Ps74	Cg85–Pg1–Ps75	Cg85–Pg1–Ps76
Cg85–Pg1–Ps77	Cg85–Pg1–Ps78	Cg85–Pg1–Ps79	Cg85–Pg1–Ps80
Cg85–Pg1–Ps81	Cg85–Pg1–Ps82	Cg85–Pg1–Ps83	Cg85–Pg1–Ps84
Cg85–Pg1–Ps85	Cg85–Pg1–Ps86	Cg85–Pg1–Ps87	Cg85–Pg1–Ps88
Cg85–Pg1–Ps89	Cg85–Pg1–Ps90	Cg85–Pg1–Ps91	Cg85–Pg1–Ps92
Cg85–Pg1–Ps93	Cg85–Pg1–Ps94	Cg85–Pg1–Ps95	Cg85–Pg1–Ps96
Cg85–Pg1–Ps97	Cg85–Pg1–Ps98	Cg85–Pg1–Ps99	Cg85–Pg1–Ps100
Cg85–Pg1–Ps101	Cg85–Pg1–Ps102	Cg85–Pg1–Ps103	Cg85–Pg1–Ps104
Cg85–Pg1–Ps105	Cg85–Pg1–Ps106	Cg85–Pg1–Ps107	Cg85–Pg1–Ps108
Cg85–Pg1–Ps109	Cg85–Pg1–Ps110	Cg85–Pg1–Ps111	Cg85–Pg1–Ps112

	Cg85–Pg1–Ps113	Cg85–Pg1–Ps114	Cg85–Pg1–Ps115	Cg85–Pg1–Ps116
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	Cg85–Pg1–Ps121	Cg85–Pg1–Ps122	Cg85–Pg1–Ps123	Cg85–Pg1–Ps124
	Cg85–Pg1–Ps125	Cg85–Pg1–Ps126	Cg85–Pg1–Ps127	Cg85–Pg1–Ps128
5	Cg85–Pg1–Ps129	Cg85–Pg1–Ps130	Cg85–Pg1–Ps131	Cg85–Pg1–Ps132
	Cg85–Pg1–Ps133	Cg85–Pg1–Ps134	Cg85–Pg1–Ps135	Cg85–Pg1–Ps136
	Cg85–Pg1–Ps137	Cg85–Pg1–Ps138	Cg85–Pg1–Ps139	Cg85–Pg1–Ps140
	Cg85–Pg1–Ps141	Cg85–Pg1–Ps142	Cg85–Pg1–Ps143	Cg85–Pg1–Ps144
	Cg85–Pg1–Ps145	Cg85–Pg1–Ps146	Cg85–Pg1–Ps147	Cg85–Pg1–Ps148
10	Cg85–Pg1–Ps149	Cg85–Pg1–Ps150	Cg85–Pg1–Ps151	Cg85–Pg1–Ps152
	Cg85–Pg1–Ps153	Cg85–Pg1–Ps154	Cg85–Pg1–Ps155	Cg85–Pg1–Ps156
	Cg85–Pg1–Ps157	Cg85–Pg1–Ps158	Cg85–Pg1–Ps159	Cg85–Pg1–Ps160
	Cg85–Pg1–Ps161	Cg85–Pg1–Ps162	Cg85–Pg1–Ps163	Cg85–Pg1–Ps164
	Cg85–Pg1–Ps165	Cg85–Pg1–Ps166	Cg85–Pg1–Ps167	Cg85–Pg1–Ps168
15	Cg85–Pg1–Ps169	Cg85–Pg1–Ps170	Cg85–Pg1–Ps171	Cg85–Pg1–Ps172
	Cg85–Pg1–Ps173	Cg85–Pg1–Ps174	Cg85–Pg1–Ps175	Cg85–Pg1–Ps176
	Cg85–Pg1–Ps177	Cg85–Pg1–Ps178	Cg85–Pg1–Ps179	Cg85–Pg1–Ps180
	Cg85–Pg1–Ps181	Cg85–Pg1–Ps182	Cg85–Pg1–Ps183	Cg85–Pg1–Ps184
	Cg85–Pg1–Ps185	Cg85–Pg1–Ps186	Cg85–Pg1–Ps187	Cg85–Pg1–Ps188
20	Cg85–Pg1–Ps189	Cg85–Pg1–Ps190	Cg85–Pg1–Ps191	Cg85–Pg1–Ps192
	Cg85–Pg1–Ps193	Cg85–Pg1–Ps194	Cg85–Pg1–Ps195	Cg85–Pg1–Ps196
	Cg85–Pg1–Ps197	Cg85–Pg1–Ps198	Cg85–Pg1–Ps199	Cg85–Pg1–Ps200
	Cg85–Pg1–Ps201	Cg85–Pg1–Ps202	Cg85–Pg1–Ps203	Cg85–Pg1–Ps204
	Cg85–Pg1–Ps205	Cg85–Pg1–Ps206	Cg85–Pg1–Ps207	Cg85–Pg1–Ps208
25	Cg85–Pg1–Ps209	Cg85–Pg1–Ps210	Cg85–Pg1–Ps211	Cg85–Pg1–Ps212
	Cg85–Pg1–Ps213	Cg85–Pg1–Ps214	Cg85–Pg1–Ps215	Cg85–Pg1–Ps216
	Cg85–Pg1–Ps217	Cg85–Pg1–Ps218	Cg85–Pg1–Ps219	Cg85–Pg1–Ps220
	Cg85–Pg1–Ps221	Cg85–Pg1–Ps222	Cg85–Pg1–Ps223	Cg85–Pg1–Ps224
	Cg85–Pg1–Ps225	Cg85–Pg1–Ps226	Cg85–Pg1–Ps227	Cg85–Pg1–Ps228
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	Cg85–Pg1–Ps233	Cg85–Pg1–Ps234	Cg85–Pg1–Ps235	Cg85–Pg1–Ps236
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	Cg86–Pg1–Ps45	Cg86–Pg1–Ps46	Cg86–Pg1–Ps47	Cg86–Pg1–Ps48
	Cg86–Pg1–Ps49	Cg86–Pg1–Ps50	Cg86–Pg1–Ps51	Cg86–Pg1–Ps52
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	Cg86–Pg1–Ps65	Cg86–Pg1–Ps66	Cg86–Pg1–Ps67	Cg86–Pg1–Ps68
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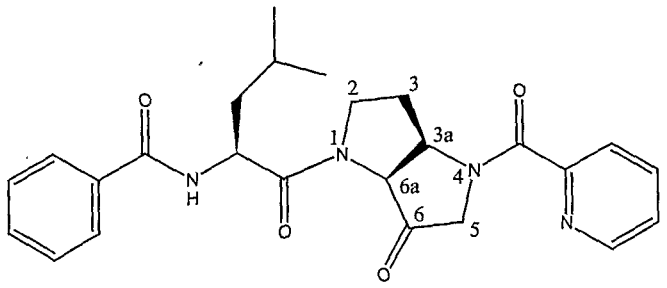
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	Cg86–Pg1–Ps81	Cg86–Pg1–Ps82	Cg86–Pg1–Ps83	Cg86–Pg1–Ps84
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	Cg86–Pg1–Ps97	Cg86–Pg1–Ps98	Cg86–Pg1–Ps99	Cg86–Pg1–Ps100
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	Cg86–Pg1–Ps105	Cg86–Pg1–Ps106	Cg86–Pg1–Ps107	Cg86–Pg1–Ps108
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50	Cg88–Pg1–Ps189	Cg88–Pg1–Ps190	Cg88–Pg1–Ps191	Cg88–Pg1–Ps192
	Cg88–Pg1–Ps193	Cg88–Pg1–Ps194	Cg88–Pg1–Ps195	Cg88–Pg1–Ps196
	Cg88–Pg1–Ps197	Cg88–Pg1–Ps198	Cg88–Pg1–Ps199	Cg88–Pg1–Ps200

	Cg88–Pg1–Ps201	Cg88–Pg1–Ps202	Cg88–Pg1–Ps203	Cg88–Pg1–Ps204
	Cg88–Pg1–Ps205	Cg88–Pg1–Ps206	Cg88–Pg1–Ps207	Cg88–Pg1–Ps208
	Cg88–Pg1–Ps209	Cg88–Pg1–Ps210	Cg88–Pg1–Ps211	Cg88–Pg1–Ps212
	Cg88–Pg1–Ps213	Cg88–Pg1–Ps214	Cg88–Pg1–Ps215	Cg88–Pg1–Ps216
5	Cg88–Pg1–Ps217	Cg88–Pg1–Ps218	Cg88–Pg1–Ps219	Cg88–Pg1–Ps220
	Cg88–Pg1–Ps221	Cg88–Pg1–Ps222	Cg88–Pg1–Ps223	Cg88–Pg1–Ps224
	Cg88–Pg1–Ps225	Cg88–Pg1–Ps226	Cg88–Pg1–Ps227	Cg88–Pg1–Ps228
	Cg88–Pg1–Ps229	Cg88–Pg1–Ps230	Cg88–Pg1–Ps231	Cg88–Pg1–Ps232
	Cg88–Pg1–Ps233	Cg88–Pg1–Ps234	Cg88–Pg1–Ps235	Cg88–Pg1–Ps236
10	Cg88–Pg1–Ps237	Cg88–Pg1–Ps238	Cg88–Pg1–Ps239	Cg88–Pg1–Ps240
	Cg88–Pg1–Ps241	Cg88–Pg1–Ps242	Cg88–Pg1–Ps243	

Abbreviations and symbols commonly used in the peptide and chemical arts are used herein to describe compounds of the present invention, following the general guidelines presented by the IUPAC-IUB Joint Commission on Biochemical Nomenclature as described in *Eur. J. Biochem.*, 158, 9-, **1984.** Compounds of formula (I) and the intermediates and starting materials used in their preparation are named in accordance with the IUPAC rules of nomenclature in which the characteristic groups have decreasing priority for citation as the principle group. An example compound of formula (I), compound **(1)** in which Z is CH_2, R^1 is $R^2C(O)$, where R^2 is 2-pyridyl, P_1, P_2 are methylene, Y is 4-methylpentoyl, $(X)_0$ is zero, $(W)_n$ is NH, $(V)_m$ is C(O) and U is phenyl is thus named:-

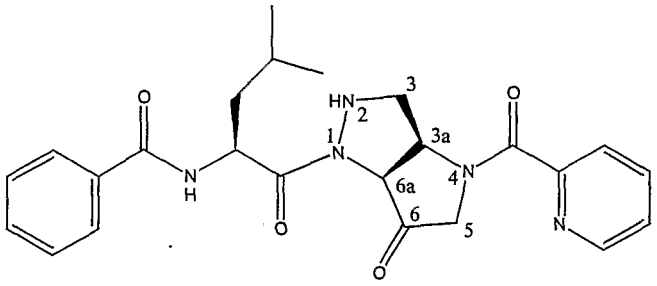


(1)

(3a*R*,6a*S*)-*N*-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydropyrrolo [3,2-b]pyrrole-1-carbonyl]-butyl}-benzamide;

A second example compound of formula (I), compound **(2)** in which Z is CH_2, R^1 is $R^2C(O)$, where R^2 is 2-pyridyl, P_1, is methylene, P_2 is NH, Y is 4-

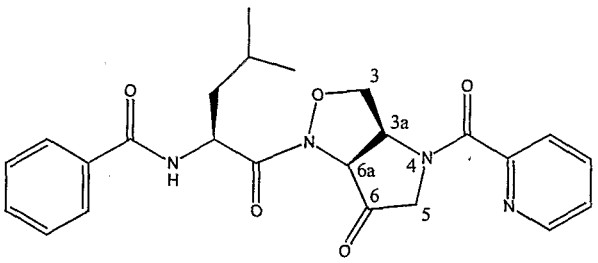
methylpentoyl, $(X)_0$ is zero, $(W)_n$ is NH, $(V)_m$ is C(O) and U is phenyl is thus named:-



(2)

(3a*R*,6a*S*)-*N*-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydropyrrolo [3,2-c]pyrazole-1-carbonyl]-butyl}-benzamide;

A third example compound of formula (I), compound **(3)** in which Z is CH_2, R^1 is $R^2C(O)$, where R^2 is 2-pyridyl, P_1, is methylene, P_2 is O, Y is 4-methylpentoyl, $(X)_0$ is zero, $(W)_n$ is NH, $(V)_m$ is C(O) and U is phenyl is thus named:-



(3)

(3a*S*, 6a*S*)-N-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-2-oxa-1,4-diaza-pentalene-1-carbonyl]-butyl}-benzamide.

Compounds of the invention include, but are not limited to, the following examples where all 4 stereoisomeric combinations of the bicyclic ketone are included where P_2 is CH_2, i.e. (3a*S*, 6a*S*), (3a*R*, 6a*S*), (3a*S*, 6a*R*), (3a*R*, 6a*R*) and also included are the equivalent analogues where P_2 is O and NH. More preferred

compounds consist of the cis-bicyclic isomers which, when P_2 is CH_2, are designated as (3a*R*, 6a*S*) and (3a*S*, 6a*R*) and also more preferred are the equivalent cis-bicyclic analogues where P_2 is O and NH.

4. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

5. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

6. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

7. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

8. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

9. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

10. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

11. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

12. {3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

13. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

14. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

15. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

16. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

17. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

18. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

19. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

20. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

21. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

22. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

23. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

24. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

25. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

26. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

27. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

28. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

29. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

30. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

31. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

32. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

33. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

34. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

35. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

36. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

37. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

38. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

39. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

40. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

41. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

42. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

43. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

44. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

45. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

46. {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

47. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

48. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

49. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

50. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

51. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

52. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

53. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

54. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

55. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

56. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

57. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

58. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

59. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

60. 4-Methyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

61. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

62. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

63. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

64. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

65. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

66. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

67. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

68. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

69. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

70. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

71. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

72. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

73. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

74. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

75. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

76. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

77. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

78. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

79. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

80. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

81. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

82. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

83. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

84. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

85. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

86. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

87. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

88. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

89. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

90. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

91. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

92. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

93. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

94. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

95. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

96. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

97. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

98. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

99. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

100. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

101. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

102. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

103. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

104. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

105. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

106. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

107. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

108. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

109. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

110. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

111. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

112. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

113. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

114. {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

115. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

116. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

117. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

118. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

119. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

120. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

121. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

122. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

123. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

124. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

125. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

126. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

127. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

128. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

129. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

130. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

131. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

132. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

133. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

134. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

135. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

136. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

137. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

138. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

139. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

140. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

141. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

142. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

143. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

144. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

145. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

146. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

147. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

148. {3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

149. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

150. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

151. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

152. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

153. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

154. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

155. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

156. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

157. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

158. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

159. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

160. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

161. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

162. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

163. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

164. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

165. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

166. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

167. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

168. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

169. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

170. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

171. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

172. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

173. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

174. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

175. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

176. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

177. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

178. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

179. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

180. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

181. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

182. {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

183. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

184. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

185. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

186. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

187. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

188. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

189. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

190. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

191. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

192. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

193. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

194. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

195. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

196. 4-Methyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

197. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

198. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

199. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

200. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

201. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

202. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

203. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

204. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

205. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

206. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

207. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

208. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

209. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

210. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

211. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

212. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

213. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

214. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

215. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

216. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

217. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

218. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

219. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

220. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

221. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

222. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

223. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

224. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

225. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

226. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

227. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

228. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

229. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

230. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

231. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

232. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

233. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

234. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

235. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

236. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

237. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

238. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

239. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

240. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

241. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

242. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

243. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

244. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

245. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

246. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

247. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

248. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

249. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

250. {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

251. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

252. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

253. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

254. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

255. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

256. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

257. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

258. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

259. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

260. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

261. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

262. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

263. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

264. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

265. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

266. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

267. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

268. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

269. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

270. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

271. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

272. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

273. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

274. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

275. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

276. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

277. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

278. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

279. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

280. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

281. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

282. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

283. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

284. {3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

285. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

286. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

287. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

288. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

289. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

290. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

291. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

292. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

293. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

294. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

295. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

296. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

297. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

298. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

299. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

300. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

301. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

302. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

303. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

304. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

305. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

306. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

307. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

308. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

309. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

310. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

311. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

312. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

313. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

314. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

315. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

316. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

317. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

318. {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

319. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

320. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

321. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

322. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

323. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

324. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

325. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

326. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

327. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

328. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

329. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

330. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

331. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

332. 4-Methyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

333. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

334. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

335. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

336. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

337. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

338. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

339. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

340. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

341. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

342. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

343. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

344. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

345. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

346. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

347. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

348. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

349. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

350. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

351. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

352. {3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

353. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

354. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

355. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

356. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

357. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

358. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

359. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

360. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

361. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

362. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

363. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

364. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

365. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

366. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

367. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

368. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

369. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

370. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

371. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

372. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

373. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

374. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

375. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

376. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

377. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

378. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

379. Quinoline-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

380. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

381. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

382. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

383. 4-*tert*-Butyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

384. 4-Dimethylamino-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

385. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

386. {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

387. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

388. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

389. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

390. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

391. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

392. Quinoline-6-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

393. Furan-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

394. Thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

395. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

396. Furan-3-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

397. Thiophene-3-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

398. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

399. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

400. 4-Methyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

401. 4-Methoxy-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

402. 4-Isopropyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

403. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

404. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

405. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

406. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

407. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

408. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

409. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

410. 4-Difluoromethoxy-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

411. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

412. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

413. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

414. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

415. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

416. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

417. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

418. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

419. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

420. {3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

421. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

422. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

423. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

424. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

425. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

426. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

427. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

428. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

429. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

430. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

431. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

432. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

433. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

434. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

435. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

436. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

437. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

438. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

439. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

440. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

441. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

442. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

443. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

444. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

445. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

446. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

447. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

448. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

449. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

450. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

451. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

452. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

453. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

454. {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

455. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

456. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

457. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

458. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

459. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

460. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

461. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

462. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

463. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

464. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

465. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

466. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

467. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

468. 4-Methyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

469. 4-Methoxy-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

470. 4-Isopropyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

471. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

472. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

473. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

474. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

475. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

476. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

477. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

478. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

479. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

480. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

481. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

482. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

483. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

484. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

485. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

486. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

487. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

488. {3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

489. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

490. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

491. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

492. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

493. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

494. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

495. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

496. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

497. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

498. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

499. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

500. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

501. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

502. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

503. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

504. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

505. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

506. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

507. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

508. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

509. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

510. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

511. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

512. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

513. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

514. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

515. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

516. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

517. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

518. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

519. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

520. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

521. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

522. {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

523. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

524. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

525. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

526. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

527. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

528. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

529. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

530. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

531. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

532. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

533. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

534. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

535. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

536. 4-Methyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

537. 4-Methoxy-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

538. 4-Isopropyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

539. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

540. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

541. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

542. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

543. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

544. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

545. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

546. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

547. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

548. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

549. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

550. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

551. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

552. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

553. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

554. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

555. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

556. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

557. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

558. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

559. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

560. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

561. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

562. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

563. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

564. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

565. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

566. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

567. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

568. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

569. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

570. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

571. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

572. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

573. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

574. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

575. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

576. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

577. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

578. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

579. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

580. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

581. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

582. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

583. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

584. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

585. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

586. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

587. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

588. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

589. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

590. {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

591. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

592. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

593. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

594. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

595. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

596. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

597. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

598. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

599. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

600. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

601. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

602. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

603. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

604. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

605. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

606. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

607. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

608. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

609. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

610. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

611. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

612. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

613. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

614. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

615. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

616. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

617. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

618. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

619. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

620. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

621. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

622. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

623. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

624. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

625. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

626. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

627. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

628. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

629. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

630. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

631. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

632. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

633. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

634. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

635. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

636. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

637. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

638. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

639. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

640. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

641. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

642. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

643. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

644. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

645. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

646. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

647. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

648. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

649. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

650. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

651. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

652. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

653. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

654. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

655. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

656. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

657. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

658. {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

659. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

660. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

661. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

662. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

663. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

664. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

665. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

666. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

667. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

668. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

669. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

670. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

671. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

672. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

673. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

674. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

675. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

676. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

677. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

678. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

679. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

680. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

681. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

682. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

683. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

684. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

685. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

686. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

687. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

688. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

689. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

690. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

691. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

692. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

693. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

694. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

695. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

696. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

697. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

698. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

699. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

700. N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

701. N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

702. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

703. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

704. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

705. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

706. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

707. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

708. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

709. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

710. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

711. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

712. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

713. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

714. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

715. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

716. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

717. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

718. N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

719. N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

720. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

721. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

722. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

723. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

724. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

725. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

726. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

727. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

728. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

729. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

730. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

731. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

732. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

733. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

734. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

735. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

736. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

737. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

738. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

739. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

740. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

741. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

742. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

743. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

744. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

745. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

746. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

747. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

748. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

749. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

750. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

751. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

752. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

753. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

754. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

755. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

756. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

757. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

758. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

759. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

760. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

761. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

762. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

763. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

764. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

765. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

766. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

767. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

768. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

769. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

770. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

771. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

772. N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

773. N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

774. 4-*tert*-Butyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

775. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

776. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

777. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

778. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

779. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

780. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

781. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

782. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

783. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

784. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

785. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

786. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

787. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

788. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

789. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

790. N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

791. N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

792. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

793. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

794. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

795. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

796. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

797. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

798. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

799. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

800. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

801. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

802. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

803. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

804. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

805. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

806. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

807. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

808. N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

809. N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

810. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

811. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

812. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

813. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

814. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

815. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

816. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

817. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

818. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

819. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

820. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

821. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

822. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

823. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

824. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

825. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

826. N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

827. N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

828. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

829. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

830. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

831. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

832. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

833. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

834. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

835. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

836. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

837. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

838. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

839. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

840. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

841. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

842. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

843. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

844. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

845. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

846. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

847. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

848. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

849. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

850. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

851. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

852. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

853. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

854. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

855. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

856. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

857. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

858. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

859. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

860. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

861. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

862. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

863. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

864. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

865. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

866. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

867. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

868. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

869. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

870. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

871. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

872. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

873. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

874. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

875. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

876. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

877. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

878. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

879. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

880. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

881. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

882. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

883. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

884. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

885. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

886. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

887. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

888. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

889. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

890. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

891. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

892. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

893. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

894. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

895. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

896. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

897. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

898. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

899. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

900. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

901. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

902. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

903. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

904. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

905. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

906. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

907. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

908. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

909. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

910. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

911. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

912. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

913. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

914. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

915. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

916. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

917. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

918. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

919. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

920. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

921. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

922. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

923. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

924. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

925. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

926. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

927. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

928. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

929. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

930. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

931. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

932. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

933. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

934. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

935. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

936. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

937. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

938. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

939. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

940. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

941. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

942. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

943. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

944. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

945. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

946. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

947. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

948. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

949. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

950. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

951. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

952. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

953. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

954. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

955. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

956. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

957. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

958. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

959. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

960. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

961. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

962. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

963. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

964. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

965. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

966. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

967. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

968. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

969. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

970. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

971. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

972. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

973. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one.

Other compounds of the invention include, but are not limited to, the following examples where all 4 stereoisomeric combinations of the bicyclic ketone are included where P_2 is CH_2, i.e. (3a*S*, 6a*S*), (3a*R*, 6a*S*), (3a*S*, 6a*R*), (3a*R*, 6a*R*) and also included are the equivalent analogues where P_2 is O and NH. More preferred compounds consist of the cis-bicyclic isomers which, when P_2 is CH_2, are designated as (3a*R*, 6a*S*) and (3a*S*, 6a*R*) and also more preferred are the equivalent cis-bicyclic analogues where P_2 is O and NH.

974. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

975. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

976. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

977. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

978. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

979. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

980. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

981. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

982. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

983. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

984. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

985. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

986. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

987. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

988. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

989. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

990. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

991. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

992. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

993. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

994. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

995. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

996. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

997. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

998. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

999. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1000. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1001. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1002. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1003. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1004. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1005. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1006. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1007. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1008. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1009. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1010. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1011. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1012. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1013. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1014. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1015. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1016. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1017. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1018. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1019. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1020. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1021. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1022. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1023. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1024. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1025. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1026. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1027. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1028. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1029. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1030. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1031. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1032. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1033. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1034. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1035. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1036. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1037. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1038. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1039. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1040. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1041. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1042. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1043. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1044. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1045. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1046. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1047. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1048. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1049. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1050. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1051. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1052. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1053. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1054. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1055. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1056. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1057. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1058. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1059. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1060. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1061. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1062. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1063. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1064. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1065. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1066. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1067. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1068. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1069. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1070. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1071. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1072. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1073. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1074. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1075. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1076. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1077. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1078. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1079. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1080. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1081. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1082. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1083. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1084. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1085. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1086. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1087. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1088. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1089. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1090. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1091. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1092. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1093. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1094. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1095. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1096. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1097. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1098. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1099. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1100. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1101. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1102. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1103. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1104. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1105. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1106. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1107. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1108. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1109. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1110. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1111. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1112. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1113. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1114. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1115. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1116. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1117. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1118. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1119. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1120. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1121. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1122. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1123. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1124. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1125. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1126. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1127. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1128. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1129. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1130. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1131. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1132. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1133. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1134. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1135. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1136. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1137. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1138. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1139. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1140. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1141. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1142. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1143. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1144. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1145. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1146. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1147. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1148. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1149. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1150. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1151. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1152. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1153. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione.

Additional compounds of the invention include, but are not limited to, the following examples where all 4 stereoisomeric combinations of the bicyclic ketone are included where P_2 is CH_2, i.e. (3a*S*, 6a*S*), (3a*R*, 6a*S*), (3a*S*, 6a*R*), (3a*R*, 6a*R*) and also included are the equivalent analogues where P_2 is O and NH. More preferred compounds consist of the cis-bicyclic isomers which, when P_2 is CH_2, are designated as (3a*R*, 6a*S*) and (3a*S*, 6a*R*) and also more preferred are the equivalent cis-bicyclic analogues where P_2 is O and NH.

1154. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butylbenzamide;

1155. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1156. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1157. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1158. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1159. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1160. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butyl-benzamide;

1161. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1162. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1163. 4-*tert*-Butyl-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1164. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1165. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1166. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1167. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1168. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1169. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1170. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1171. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1172. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1173. 4-*tert*-Butyl-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1174. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1175. 4-*tert*-Butyl-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1176. 4-*tert*-Butyl-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1177. 4-*tert*-Butyl-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1178. 4-*tert*-Butyl-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1179. 4-*tert*-Butyl-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1180. 4-*tert*-Butyl-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1181. 4-*tert*-Butyl-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1182. 4-*tert*-Butyl-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1183. 4-*tert*-Butyl-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1184. 4-*tert*-Butyl-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1185. 4-*tert*-Butyl-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1186. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1187. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1188. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1189. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1190. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1191. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1192. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1193. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1194. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1195. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1196. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1197. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1198. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1199. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1200. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1201. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1202. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1203. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1204. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1205. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1206. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1207. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1208. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1209. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-*tert*-butyl-benzamide;

1210. 4-*tert*-Butyl-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1211. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1212. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1213. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1214. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1215. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1216. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1217. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1218. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1219. 4-*tert*-Butyl-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1220. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1221. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1222. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1223. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1224. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1225. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1226. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1227. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1228. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1229. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1230. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1231. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1232. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1233. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1234. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1235. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1236. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1237. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1238. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1239. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1240. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1241. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1242. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1243. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1244. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylaminobenzamide;

1245. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1246. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1247. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1248. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1249. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1250. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide;

1251. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1252. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1253. 4-Dimethylamino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1254. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1255. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1256. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1257. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1258. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1259. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1260. 4-Dimethylamino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1261. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1262. 4-Dimethylamino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1263. 4-Dimethylamino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1264. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1265. 4-Dimethylamino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1266. 4-Dimethylamino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1267. 4-Dimethylamino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1268. 4-Dimethylamino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1269. 4-Dimethylamino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1270. 4-Dimethylamino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1271. 4-Dimethylamino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1272. 4-Dimethylamino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1273. 4-Dimethylamino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1274. 4-Dimethylamino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1275. 4-Dimethylamino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1276. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1277. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1278. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1279. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1280. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1281. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1282. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1283. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1284. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1285. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1286. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1287. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1288. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1289. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1290. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1291. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1292. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1293. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1294. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1295. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1296. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1297. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1298. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1299. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-dimethylamino-benzamide;

1300. 4-Dimethylamino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1301. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1302. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1303. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1304. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1305. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1306. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1307. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1308. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1309. 4-Dimethylamino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1310. 4-Dimethylamino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1311. 4-Dimethylamino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1312. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1313. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1314. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1315. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1316. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1317. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1318. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1319. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1320. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1321. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1322. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1323. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1324. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1325. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1326. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1327. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1328. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1329. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1330. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1331. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1332. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1333. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1334. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1335. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1336. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1337. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1338. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1339. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1340. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1341. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1342. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1343. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-thiophen-2-yl-benzamide;

1344. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1345. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1346. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1347. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1348. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1349. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1350. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1351. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1352. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1353. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-thiophen-2-yl-benzamide;

1354. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1355. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1356. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1357. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1358. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1359. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1360. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1361. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1362. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1363. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1364. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1365. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1366. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1367. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1368. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1369. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1370. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1371. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1372. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1373. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1374. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1375. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1376. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1377. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1378. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1379. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1380. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1381. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1382. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1383. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1384. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1385. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1386. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1387. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1388. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1389. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-thiophen-2-yl-benzamide;

1390. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1391. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1392. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1393. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1394. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1395. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1396. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1397. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1398. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1399. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-thiophen-2-yl-benzamide;

1400. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1401. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1402. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1403. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1404. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1405. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1406. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1407. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1408. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1409. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1410. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1411. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1412. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1413. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1414. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1415. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1416. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1417. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1418. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1419. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1420. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1421. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1422. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1423. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1424. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1425. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1426. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1427. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1428. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1429. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1430. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1431. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1432. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1433. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1434. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1435. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1436. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1437. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1438. 5-Phenyl-thiophene-2-carboxylic acid-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-amide;

1439. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid phenylamide;

1440. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid isobutyl-amide;

1441. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid phenyl ester;

1442. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid isobutyl ester;

1443. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1444. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1445. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1446. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1447. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1448. 5-Phenyl-thiophene-2-carboxylic acid-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-amide;

1449. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1450. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1451. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1452. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1453. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1454. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1455. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1456. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1457. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1458. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1459. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1460. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1461. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1462. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1463. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1464. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1465. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1466. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1467. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1468. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1469. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1470. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1471. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1472. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1473. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1474. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1475. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1476. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1477. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1478. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1479. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1480. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1481. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1482. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1483. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1484. 5-Phenyl-thiophene-2-carboxylic acid-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-amide;

1485. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1486. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1487. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1488. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1489. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1490. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1491. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1492. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1493. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1494. 5-Phenyl-thiophene-2-carboxylic acid-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-amide;

1495. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1496. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1497. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1498. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1499. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1500. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1501. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1502. 5-Phenyl-thiophene-2-carboxylic acid {1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1503. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1504. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1505. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1506. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1507. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1508. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1509. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1510. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1511. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1512. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1513. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1514. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1515. 5-Phenyl-thiophene-2-carboxylic acid =-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1516. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1517. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1518. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1519. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-ylbenzamide;

1520. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1521. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1522. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1523. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1524. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1525. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1526. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1527. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1528. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1529. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1530. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1531. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1532. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1533. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-pyrrolidin-1-yl-benzamide;

1534. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1535. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1536. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1537. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1538. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1539. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1540. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1541. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1542. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1543. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-pyrrolidin-1-yl-benzamide;

1544. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1545. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1546. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1547. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1548. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1549. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1550. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1551. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1552. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1553. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1554. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1555. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1556. 4-Pyrrolidin-1-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1557. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1558. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1559. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1560. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1561. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1562. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1563. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1564. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1565. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1566. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1567. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1568. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1569. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1570. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1571. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1572. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1573. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1574. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1575. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1576. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1577. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1578. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1579. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-pyrrolidin-1-yl-benzamide;

1580. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1581. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1582. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1583. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1584. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1585. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1586. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1587. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1588. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1589. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-pyrrolidin-1-yl-benzamide;

1590. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1591. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1592. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1593. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1594. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1595. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1596. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1597. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1598. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1599. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1600. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1601. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1602. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1603. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1604. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1605. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1606. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1607. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1608. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1609. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1610. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1611. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1612. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1613. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1614. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-ylbenzamide;

1615. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1616. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1617. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1618. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1619. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1620. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1621. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1622. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1623. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-morpholin-4-yl-benzamide;

1624. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1625. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1626. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1627. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1628. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1629. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1630. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1631. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1632. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1633. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-morpholin-4-yl-benzamide;

1634. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1635. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1636. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1637. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1638. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1639. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1640. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1641. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1642. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1643. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1644. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1645. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1646. 4-morpholin-4-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1647. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1648. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1649. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1650. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1651. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1652. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1653. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1654. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1655. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1656. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1657. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1658. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1659. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1660. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1661. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1662. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1663. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1664. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1665. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1666. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1667. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1668. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1669. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-morpholin-4-yl-benzamide;

1670. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1671. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1672. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1673. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1674. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1675. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1676. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1677. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1678. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1679. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-morpholin-4-yl-benzamide;

1680. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1681. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1682. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1683. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1684. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1685. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1686. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1687. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1688. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1689. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1690. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1691. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1692. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1693. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1694. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1695. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1696. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1697. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1698. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1699. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1700. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1701. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1702. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1703. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1704. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-ylbenzamide;

1705. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1706. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1707. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1708. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1709. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1710. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1711. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1712. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1713. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1714. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1715. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1716. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1717. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1718. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-piperazin-1-yl-benzamide;

1719. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1720. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1721. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1722. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1723. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1724. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1725. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1726. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1727. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1728. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-piperazin-1-yl-benzamide;

1729. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1730. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1731. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1732. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1733. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1734. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1735. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1736. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1737. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1738. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1739. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1740. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1741. 4-piperazin-1-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1742. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1743. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1744. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1745. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1746. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1747. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1748. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1749. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1750. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1751. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1752. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1753. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1754. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1755. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1756. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1757. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1758. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1759. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1760. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1761. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1762. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1763. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1764. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-piperazin-1-yl-benzamide;

1765. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1766. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1767. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1768. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1769. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1770. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1771. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1772. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1773. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1774. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-piperazin-1-yl-benzamide;

1775. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1776. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1777. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1778. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1779. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1780. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1781. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1782. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1783. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1784. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1785. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1786. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1787. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1788. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1789. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1790. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1791. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1792. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1793. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1794. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1795. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1796. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1797. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1798. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1799. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)benzamide;

1800. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1801. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1802. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1803. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1804. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1805. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1806. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1807. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1808. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1809. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1810. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1811. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1812. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1813. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1814. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1815. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1816. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1817. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1818. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-(4-methyl-piperazin-1-yl)-benzamide;

1819. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1820. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1821. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1822. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1823. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1824. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1825. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1826. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1827. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1828. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1829. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1830. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1831. 4-(4-methyl-piperazin-1-yl)-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1832. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1833. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1834. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1835. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1836. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1837. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1838. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1839. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1840. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1841. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1842. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1843. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1844. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1845. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1846. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1847. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1848. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1849. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1850. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1851. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1852. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1853. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1854. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-(4-methyl-piperazin-1-yl)-benzamide;

1855. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1856. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1857. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1858. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1859. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1860. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1861. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1862. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1863. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1864. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1865. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1866. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1867. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1868. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1869. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1870. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1871. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1872. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1873. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1874. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1875. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1876. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1877. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1878. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1879. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1880. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1881. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1882. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1883. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1884. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1885. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1886. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1887. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1888. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1889. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-aminobenzamide;

1890. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1891. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1892. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1893. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1894. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1895. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1896. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-amino-benzamide;

1897. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1898. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1899. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1900. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1901. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1902. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1903. 4-Amino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1904. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1905. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1906. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1907. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1908. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1909. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1910. 4-Amino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1911. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1912. 4-Amino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1913. 4-Amino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1914. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1915. 4-Amino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1916. 4-Amino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1917. 4-Amino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1918. 4-Amino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1919. 4-Amino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1920. 4-Amino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1921. 4-Amino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1922. 4-Amino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1923. 4-Amino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1924. 4-Amino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1925. 4-Amino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1926. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1927. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1928. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1929. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1930. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1931. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-Amino-benzamide;

1932. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1933. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1934. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1935. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1936. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1937. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1938. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1939. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1940. 4-Amino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1941. 4-Amino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1942. 4-Amino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1943. *N*-{1-[4-(2-amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1944. *N*-{1-[4-(2-amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1945. *N*-{1-[4-(2-acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1946. *N*-{1-[4-(2-acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1947. *N*-{1-[4-(2-acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1948. *N*-{1-[4-(2-acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1949. *N*-(1-{4-[2-(acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-amino-benzamide;

1950. 4-Amino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1951. *N*-{1-[4-(2-amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1952. *N*-{1-[4-(2-acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1953. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1954. *N*-{1-[4-(2-acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1955. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1956. *N*-{1-[4-(2-acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1957. *N*-{1-[4-(2-amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1958. *N*-{1-[4-(2-acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1959. 4-Amino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1960. 4-Amino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1961. 4-Amino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1962. *N*-{1-[4-(2-amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1963. *N*-{1-[4-(2-acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1964. *N*-{1-[4-(2-amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1965. *N*-{1-[4-(2-acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1966. *N*-{1-[4-(2-amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1967. *N*-{1-[4-(2-acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1968. *N*-{1-[4-(2-amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1969. *N*-{1-[4-(2-acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1970. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1971. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1972. 4-Amino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1973. 4-Amino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1974. 4-Amino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1975. 4-Amino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1976. 4-Amino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1977. 4-Amino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1978. 4-Amino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1979. 4-Amino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1980. 4-Amino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1981. 4-Amino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1982. 4-Amino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1983. 4-Amino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1984. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-diethylaminobenzamide;

1985. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1986. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1987. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1988. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1989. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1990. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1991. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-diethylamino-benzamide;

1992. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1993. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1994. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1995. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1996. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1997. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1998. 4-Diethylamino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1999. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

2000. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

2001. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

2002. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

2003. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2004. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2005. 4-Diethylamino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2006. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2007. 4-Diethylamino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2008. 4-Diethylamino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

2009. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2010. 4-Diethylamino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2011. 4-Diethylamino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2012. 4-Diethylamino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2013. 4-Diethylamino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2014. 4-Diethylamino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2015. 4-Diethylamino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2016. 4-Diethylamino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

2017. 4-Diethylamino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

2018. 4-Diethylamino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2019. 4-Diethylamino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2020. 4-Diethylamino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2021. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2022. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2023. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2024. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2025. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2026. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2027. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2028. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2029. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2030. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2031. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2032. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2033. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2034. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2035. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2036. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2037. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2038. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2039. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2040. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2041. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2042. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2043. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2044. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-diethylamino-benzamide;

2045. 4-Diethylamino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2046. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2047. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2048. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2049. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2050. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2051. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2052. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2053. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2054. 4-Diethylamino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

2055. 4-Diethylamino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2056. 4-Diethylamino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2057. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2058. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2059. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2060. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2061. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2062. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2063. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2064. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2065. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2066. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2067. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2068. 4-Diethylamino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2069. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2070. 4-Diethylamino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2071. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2072. 4-Diethylamino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2073. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2074. 4-Diethylamino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2075. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2076. 4-Diethylamino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2077. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2078. 4-Diethylamino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

To those skilled in the practices of organic chemistry, compounds of general formula (I) may be readily synthesised by a number of chemical strategies, performed either in solution or on the solid phase (see Atherton, E. and Sheppard, R. C. In '*Solid Phase Peptide Synthesis: A Practical Approach*', Oxford University Press, Oxford, U.K. **1989**, for a general review of solid phase synthesis principles). The solid phase strategy is attractive in being able to generate many thousands of analogues, typically on a 5-100mg scale, through established parallel synthesis methodologies (e.g. see (a) Bastos, M.; Maeji, N. J.; Abeles, R. H. *Proc. Natl. Acad. Sci. USA,* 92, 6738-6742, **1995**).

Therefore, one strategy for the synthesis of compounds of general formula (I) comprises:-

(a) Preparation of an appropriately functionalised and protected bicyclic ketone building block in solution.

(b) Attachment of the building block (a) to the solid phase through a linker that is stable to the conditions of synthesis, but readily labile to cleavage at the end of a synthesis (see James, I. W., *Tetrahedron, 55(Report N° 489)*, 4855-4946, **1999**, for examples of the 'linker' function as applied to solid phase synthesis).

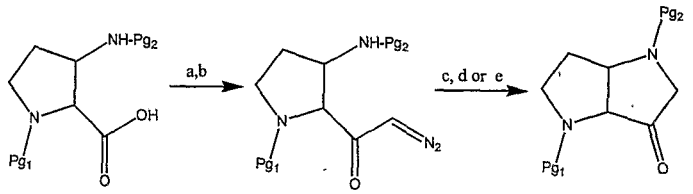
(c) Solid phase organic chemistry (see Brown, R. D. *J. Chem. Soc., Perkin Trans.1*, 19, 3293-3320, **1998**), to construct the remainder of the molecule.

(d) Compound cleavage from the solid phase into solution.

(e) Cleavage work-up and compound analysis.

The first stage in a synthesis of compounds of general formula (I) is the preparation in solution of a functionalised and protected building block. Typical schemes towards the hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)** are detailed in Schemes 1-3, a hexahydropyrrolo[3,2-*c*]pyrazol-6-one **(21)** in Scheme 4 and a hexahydro-2-oxa-1,4-diazapentalen-6-one **(26)** in Scheme 5. The synthetic descriptions detailed in Schemes 6-18 could equally be applied using each of the scaffolds of general formula (I).

'Pg_1' and 'Pg_2' denotes suitable amine protecting groups such as the 9-fluorenyl methoxycarbonyl (Fmoc, see Atherton, E. and Sheppard, R. C. In '*Solid Phase Peptide Synthesis: A Practical Approach*', Oxford University Press, Oxford, U.K. **1989**), *tert*-butoxycarbonyl (Boc), benzyloxycarbonyl (Cbz) or allyloxycarbonyl (Alloc) for example.



(4) (5) (6)

Scheme 1. (a) ^{i}BuOCOCl, NMM, DCM, -15°C, under argon. (b) Diazomethane in diethyl ether, -15°C, 30mins, then RT overnight. (c) LiCl (10eq) in 80%aq acetic acid RT overnight. (d) HBr / acetic acid followed by re-addition of Pg_2 (if 'Pg_2' is Boc). (e) $Rh(II)(OAc)_4$, DCM, reflux.

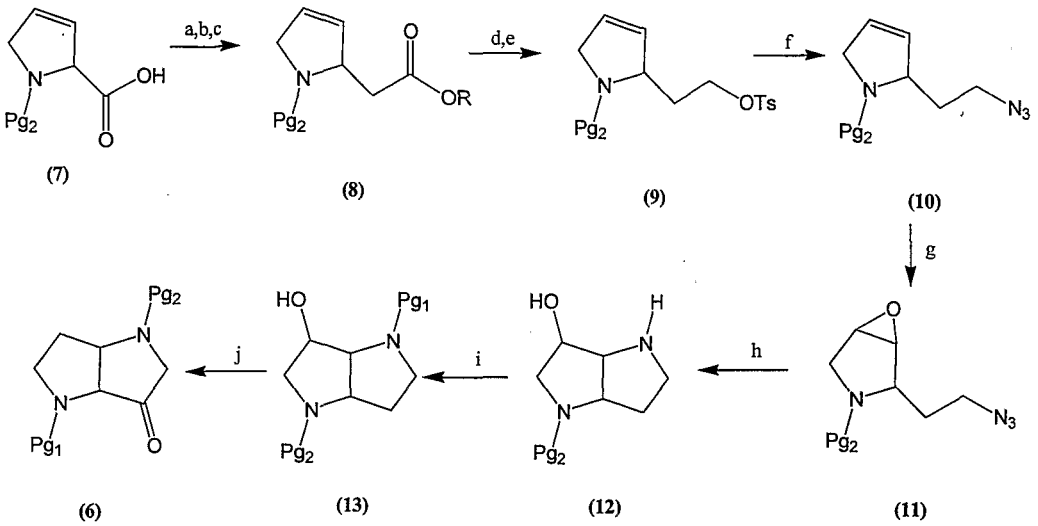
In the illustrated case, condensation with diazomethane provides Z = CH_2 in general formula (I). Synthesis may commence from a suitably protected β-aminoproline **(4)** which are described in the literature e.g. Gomez-Vidal, J. A. and Silverman, R. B. *Org. Lett.*, 3(16), 2481-2484, **2001**.

Activation of the suitably protected β-aminoproline **(4)** via isobutyl chloroformate mixed anhydride, followed by condensation with diazomethane, yields the diazomethylketone intermediate **(5)**. Treatment of diazomethylketone intermediate **(5)** with lithium chloride in aqueous acetic acid provides the protected

hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)**. Alternatively, when Pg_2 is Boc, treatment with HBr in acetic acid provides an intermediate bicycle with the secondary amine. HBr salt. This intermediate may be acylated with a variety of reagents e.g. activated carboxylic acids, sulphonyl chlorides, urethane chloroformates to provide many variations of **(6)** where the nitrogen substituent is a suitable protecting group 'Pg_2' or $R^2C(O)$, R^2SO_2, etc. Alternatively, treatment of diazomethylketone intermediate **(5)** with rhodium (II) tetraacetate in dichloromethane provides the hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)** (e.g. see Lall, M. S. *et al*, *J. Org. Chem.*, 67, 1536-1547, **2002**. and refs cited therein).

Introduction of simple 'Z' substituents may be achieved by condensation of activated **(4)** with alternatives to diazomethane such as diazoethane (Z = $CHCH_3$, R^3 = H, R^4 = CH_3), or 1-phenyloxydiazoethane (Z = $CHCH_2OPh$, R^3 = H, R^4 = CH_2OPh).

An alternative route towards a suitably protected building block is detailed in Scheme 2. Using an Arndt-Eistert synthesis, a suitably protected 3,4-dehydroproline **(7)** may be homologated by methylene insertion between the α-carbon and carboxylic acid following standard literature methods (e.g. see Meier and Zeller, *Angew. Chem. Intl. Ed. Engl.*, 14, 32-43, **1975** for a review). Conversion of **(7)** into the α-diazomethylketone proceeds via isobutyl chloroformate mixed anhydride, followed by condensation with diazomethane. Wolff rearrangement, e.g. with silver oxide in methanol provides the protected homologated analogue **(8)**, e.g. 2-Methoxycarbonylmethyl-2,5-dihydro-pyrrole-1-carboxylic acid tert-butyl ester.

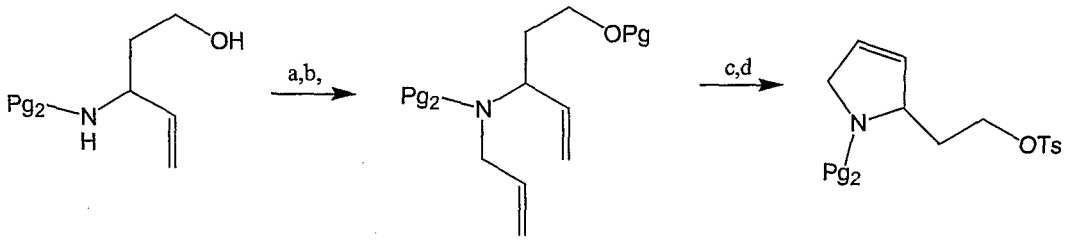


Scheme 2. (a) ^{i}BuOCOCl, NMM, DCM, -15°C, under argon. (b) Diazomethane in diethyl ether, -15°C, 30mins, then RT overnight. (c) Arndt-Eistert, e.g. Silver oxide in methanol (R = CH_3). (d) DIBAL reduction. (e) Tosylchloride, pyridine. (f) Sodium azide, DCM / DMF (g) m-chloroperbenzoic acid, DCM. (h) Azide reduction to amine, e.g. Pd-C / H_2 in ethanol. (i) Secondary amine protection, 'Pg_1' e.g. 1.05 eq Fmoc-Cl, 2.1eq Na_2CO_3, dioxan, water. (j) Dess-Martin periodane, DCM.

Treatment of the methyl ester **(8)** with a reducing agent such as DIBAL-H (diisobutylaluminium hydride) provides the primary alcohol, which is readily converted to tosylate **(9)**. Similarly the mesylate or triflate analogues of **(9)** may be prepared. Nucleophilic displacement of the activated alcohol with sodium azide provides intermediate **(10)** e.g. 2-(2-Azido-ethyl)-2,5-dihydro-pyrrole-1-carboxylic acid tert-butyl ester. Epoxidation of **(10)** with oxidising agents common to the art such as *m*-CPBA provides the epoxide **(11)** e.g. 2-(2-Azido-ethyl)-6-oxa-3-aza-bicyclo[3.1.0]hexane-3-carboxylic acid tert-butyl ester. Reduction of the azide **(11)** to the amine intermediate may be effected under a range of conditions such as Pd-C / H_2 or triphenylphosphine in THF and water. The amine intermediates undergo intramolecular epoxide ring opening to provide the bicyclic alcohol **(12)** e.g. 3-Hydroxy-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid tert-butyl ester. The free secondary amine **(12)** may be protected with a variety of suitable protecting groups such as Fmoc, Boc, Cbz, Alloc to provide orthogonal protection of the bicyclic scaffold. Protected alcohol **(13)** may be oxidised by reagents common to the art such as pyridine sulphur trioxide

complex in DMSO and triethylamine or Dess-Martin periodane to provide ketone **(6)** e.g. 3-Oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1,4-dicarboxylic acid 1-tert-butyl ester 4-(9H-fluoren-9-ylmethyl) ester.

Alternative routes towards intermediate **(9)** (ex Scheme 2) are available such as that detailed in Scheme 3. Protected alkene **(14)** is readily available following literature procedures from the protected homoserine lactol ((a) Wright, D. L. *et al*, *Org. Lett.*, 2(13), 1847-1850, **2000**. (b) Boyle, P. H. *et al*, *Tet. Asymm.*, 6, 2819, **1995**. (c) Baldwin, J. E. and Flinn, A., *Org. Lett.*, 28, 3605, **1987**.). N-alkylation of **(14)** with a base such as sodium hydride and allyl bromide provides diene **(15)**. Treatment of **(15)** with the olefin metathesis catalysts developed by Grubbs such as bis(tricyclohexylphosphine)benzylidine ruthenium (IV) dichloride provides the protected primary alcohol intermediate of compound **(9)** detailed in Scheme 2.

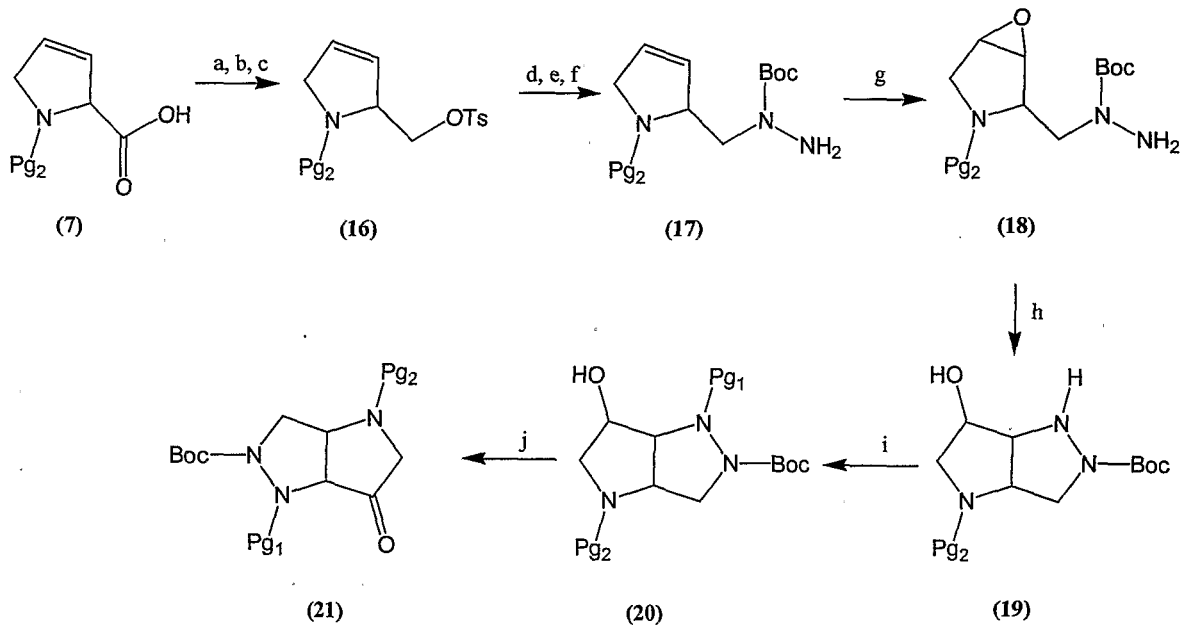


(14) **(15)** **(9)**

Scheme 3. (a) Primary alcohol protection, e.g. TBDMS-Cl, base (b) NaH, allylbromide, DMF. (c) bis(tricyclohexylphosphine)benzylidine ruthenium (IV) dichloride, DCM, reflux (d) i. TBAF, THF, ii. Tosylchloride, pyridine.

The hexahydropyrrolo[3,2-*c*]pyrazol-6-one **(21)** scaffold may be prepared following a similar route to that described in Scheme 2 (see Scheme 4). Treatment of the protected 3,4-dehydroproline **(7)** with HCl in methanol provides the methyl ester. Reduction of the ester with a reducing agent such as DIBAL-H (diisobutylaluminium hydride) provides the primary alcohol, which is readily converted to tosylate **(16)**. Similarly the mesylate or triflate analogues of **(16)** may be prepared. Nucleophilic displacement of the activated alcohol with a protected hydrazide e.g. Hydrazinecarboxylic acid allyl ester (Alloc-$NHNH_2$) followed by Boc protection of the secondary hydrazide e.g. under standard Schotten-Baumenn

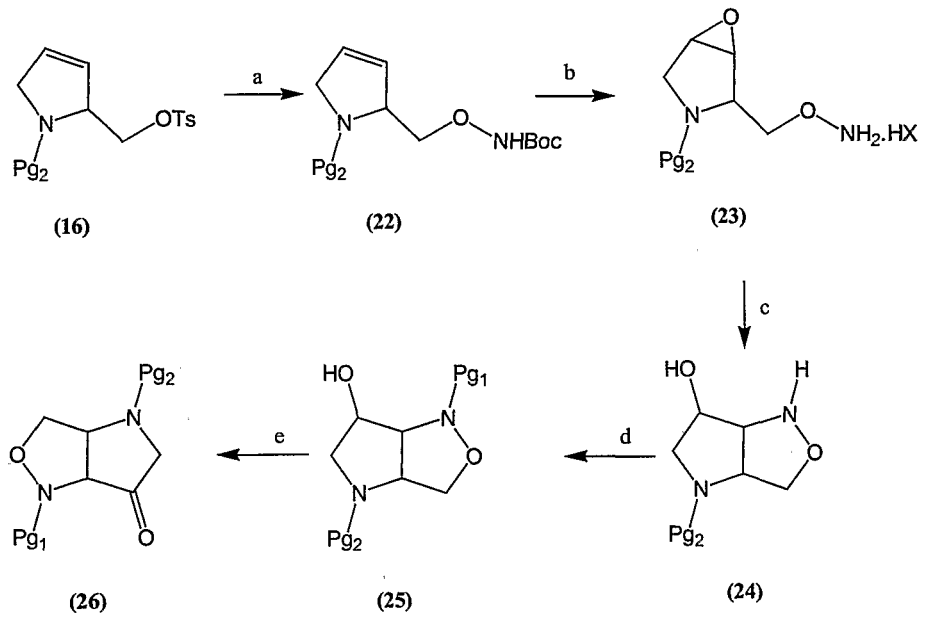
conditions and removal of the alloc group e.g. $(PPh_3)_4Pd^o$ / DCM / $PhSiH_3$ provides **(17)**. Epoxidation of **(17)** with oxidising agents common to the art such as *m*-CPBA provides the epoxide intermediate **(18)**. Intermediate **(18)** readily undergoes intramolecular epoxide ring opening to provide the bicyclic alcohol **(19)**. The free secondary hydrazide **(19)** may be protected with a variety of suitable protecting groups e.g. Fmoc, Cbz, Alloc to provide orthogonal protection of the bicyclic scaffold. Protected alcohol **(20)** may be oxidised by reagents common to the art such as pyridine sulphur trioxide complex in DMSO and triethylamine or Dess-Martin periodane to provide ketone **(21)**.



Scheme 4. (a) MeOH / HCl, Dean-Stark (b) DIBAL reduction. (c) Tosylchloride, pyridine (d) Alloc-$NHNH_2$ (e) $(Boc)_2O$, Na_2CO_3, dioxan, water (f) $(PPh_3)_4Pd^o$ / DCM / $PhSiH_3$ (g) m-chloroperbenzoic acid, DCM. (h) Δ (i) Pg_1 protection, e.g. 1.05 eq Fmoc-Cl, 2.1eq Na_2CO_3, dioxan, water. (j) Dess-Martin periodane, DCM.

The hexahydro-2-oxa-1,4-diazapentalen-6-one **(26)** scaffold may be prepared following a similar route to that described in Scheme 4. Tosylate **(16)** undergoes nucleophilic displacement with a protected oxyamine e.g. N-Boc hydroxylamine to provide intermediate **(22)**. Epoxidation of **(22)** with oxidising agents common to the art such as *m*-CPBA provides the epoxide intermediate, which upon

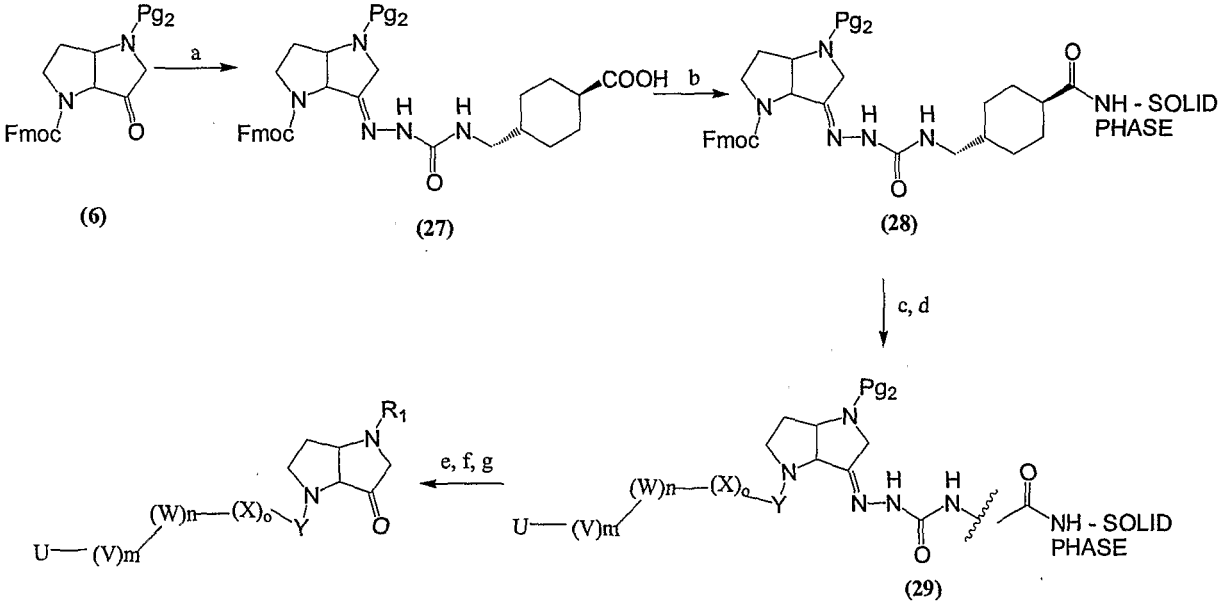
acidolytic removal of the Boc group provides intermediate amine.salt **(23)**. Neutralisation of the amine.salt initiates intramolecular epoxide ring opening to provide the bicyclic alcohol **(24)**. The free secondary amine **(24)** may be protected with a variety of suitable protecting groups e.g. Fmoc, Cbz, Alloc, Boc to provide orthogonal protection of the bicyclic scaffold. Protected alcohol **(25)** may be oxidised by reagents common to the art such as pyridine sulphur trioxide complex in DMSO and triethylamine or Dess-Martin periodane to provide ketone **(26)** e.g. 6-Oxo-tetrahydro-2-oxa-1,4-diaza-pentalene-1,4-dicarboxylic acid 4-benzyl ester 1-(9H-fluoren-9-ylmethyl) ester.



Scheme 5. (a)Boc-NHOH (b) i. m-chloroperbenzoic acid, DCM. ii. e.g. HCl / dioxan. (c) Base neutralisation e.g. N-methylmorpholine in DMF. (d) Pg_1 protection, e.g. 1.05 eq Fmoc-Cl, 2.1eq Na_2CO_3, dioxan, water. (e) Dess-Martin periodane, DCM.

The protected building blocks detailed in Schemes 1, 2, 4 and 5 may be utilised in a solid phase synthesis of inhibitor molecules (steps (b) to (e)). Preferred protecting group combinations include 'Pg_1' = Fmoc / 'Pg_2' = Boc, or 'Pg_1' = Fmoc / 'Pg_2' = Alloc, or 'Pg_1' = Boc / 'Pg_2' = Fmoc, or 'Pg_1' = Boc / 'Pg_2' = Alloc, or 'Pg_1' = Alloc / 'Pg_2' = Fmoc, or 'Pg_1' = Alloc / 'Pg_2' = Boc. The solid phase syntheses exemplified in Schemes 6 and 7 by the use of

hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)** and octahydropyrrolo[3,2-b]pyrrol-3-ol **(13)** could equally apply to ketones **(21)** and **(26)** and alcohols **(20)** and **(25)**. Step (b), the solid phase linkage of an aldehyde or ketone, has previously been described by a variety of methods (e.g. see (a) James, I. W., **1999**, (b) Lee, A., Huang, L., Ellman, J. A., *J. Am. Chem. Soc,* 121(43), 9907-9914, **1999**, (c) Murphy, A. M., *et al*, J. Am. Chem. Soc, 114, 3156-3157, **1992**). A suitable method amenable to the reversible linkage of an alkyl ketone functionality such as **(6)** is through a combination of the previously described chemistries. The semicarbazide, 4-[[(hydrazinocarbonyl)amino]methyl]cyclohexane carboxylic acid. trifluoroacetate (Murphy, A. M., *et al*, J. Am. Chem. Soc, 114, 3156-3157, **1992**), may be utilised as illustrated in Scheme 6, where 'Pg_1' = Fmoc and 'Pg_2' = Boc or Alloc, exemplified by linkage of the hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)**.



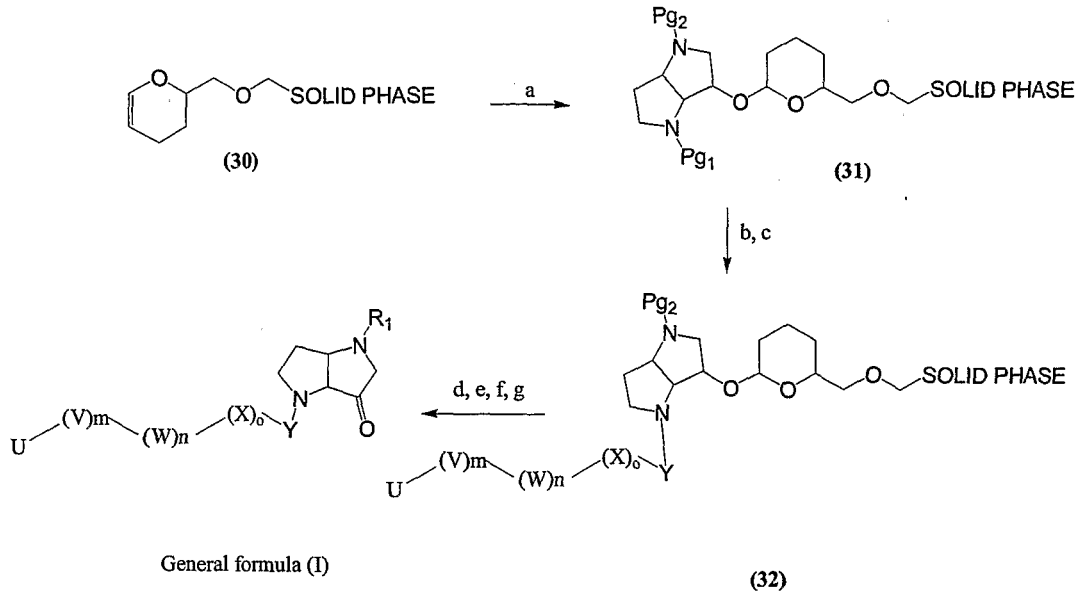
General formula (*I*)

Scheme 6. (a) **(6)** in 90% EtOH / H_2O / NaOAc / 4-[[(hydrazinocarbonyl)amino]methyl]-cyclohexane carboxylic acid.trifluoroacetate, reflux. (b) 3eq construct **(27)** / 3eq HBTU / 3eq HOBt / 6eq NMM, NH_2-SOLID PHASE, DMF, RT, o/n. (c) 20% piperidine / DMF, RT, 30mins. (d) Range of chemistries to add U-V-W-X-Y. (e) 'Pg_2' = Boc then 35%TFA in DCM, or 'Pg_2' = Alloc then e.g. $(PPh_3)_4Pd(0)$ catalysed deprotection /$CHCl_3$ / DMF / AcOH / NMM (f) i. RCOOH /

activation e.g. HBTU / HOBT / NMM, in DMF or ii. SO_2Cl, pyridine in DMF. (g) 95% TFA / H_2O.

Construct **(28)** is prepared through reaction of the linker molecule **(27)** and the hexahydropyrrolo[3,2-*b*]pyrrol-3-one **(6)** by reflux in aqueous ethanol / sodium acetate. Standard solid phase techniques (e.g. see Atherton, E. and Sheppard, R. C. In '*Solid Phase Peptide Synthesis: A Practical Approach*', Oxford University Press, Oxford, U.K. **1989**) are used to anchor the construct to an amino-functionalised solid phase through the free carboxylic acid functionality of **(27)**, providing the loaded construct **(28)**. Loaded construct **(28)** may be reacted with a wide range of carboxylic acids or sulphonyl chlorides available commercially in the literature, to introduce the left-hand portion 'U-V-W-X-Y' in general formula (I), providing loaded construct **(29)**. Orthogonal removal of 'Pg_2' then liberates the secondary amine functionality of the right-hand ring, which may be acylated with a range of carboxylic acid and sulphonyl chlorides. Finally, compounds of general formula (I) are released from the solid phase by treatment with 95% aq trifluoroacetic acid.

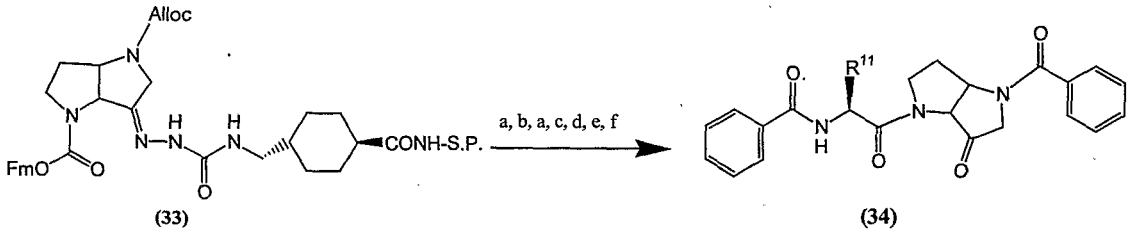
An alternative solid phase synthesis of compounds of general formula (I) utilises the bicyclic alcohol intermediate **(13)**, Scheme 7. The secondary alcohol may be attached to the solid phase through the acid labile dihydropyran linker **(30)** that is well known in the literature (e.g. see (a) Thompson, L. A. and Ellman, J. A., *Tet. Lett.*, 35, 9333, **1994**. (b) Kick, E. K. and Ellman, J. A. *J. Med. Chem.*, 38, 1427, **1995**.). Preferred protecting group combinations include 'Pg_1' = Fmoc / 'Pg_2' = Alloc, or 'Pg_1' = Alloc / 'Pg_2' = Fmoc.



Scheme 7. (a) **(13)** in dichloroethane, pyridinium p-toluenesulphonate, reflux (b) 'Pg_1' = Fmoc then 20% piperidine / DMF, RT, 30mins or 'Pg_1' = Alloc then $(PPh_3)_4Pd(0)$ catalysed deprotection /$CHCl_3$ / DMF / AcOH / NMM (c) Range of chemistries to add U-V-W-X-Y. (d) 'Pg_2' = Fmoc then 20% piperidine / DMF, RT, 30mins or 'Pg_2' = Alloc then e.g. $(PPh_3)_4Pd(0)$ catalysed deprotection /$CHCl_3$ / DMF / AcOH / NMM (e) i. RCOOH / activation e.g. HBTU / HOBT / NMM, in DMF or ii. SO_2Cl, pyridine in DMF. (f) 95% TFA / H_2O. (g) Solid supported oxidation or e.g. Dess-Martin periodane, DCM.

Loaded construct **(31)** may be reacted with a wide range of carboxylic acids or sulphonyl chlorides available commercially in the literature, to introduce the left-hand portion 'U-V-W-X-Y' in general formula (I), providing loaded construct **(32)**. Orthogonal removal of 'Pg_2' then liberates the secondary amine functionality of the right-hand ring, which may be acylated with a range of carboxylic acid and sulphonyl chlorides. Compounds of general formula (I) are released from the solid phase by treatment with 95% aq trifluoroacetic acid and the resultant alcohols may be oxidised with a range of solution based reagents e.g. Dess-Martin periodane in DCM or solid supported oxidants (e.g. see Ley, S. V. *et al, J. Chem. Soc. Perkin Trans. 1.*, 3815-4195, **2000**.) to provide the ketone products.

In the simplest example, the entire left hand portion of an inhibitor of general formula (I) comprises a capped aminoacid (Scheme 8), providing for example analogues of general formula (I) where Z = 'CH_2', Y = $CHR^{11}C(O)$, $(X)_o$ = '-', $(W)_n$ = 'NH', R^{18} = 'H', n = 1, $(V)_m$ = 'CO', m = 1 and U = phenyl. Scheme 8 details chemistry utilising protected ketone construct **(33)** and the reactions could equally be applied to the protected alcohol construct **(31).**



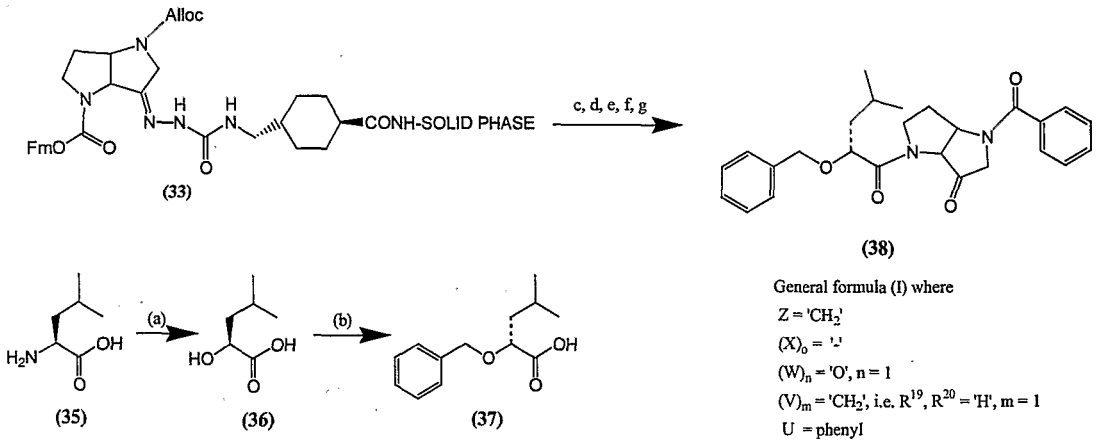
(33) (34)

General formula (I) where
Z = 'CH_2'
R^1 = PhC(O)
$(X)_o$ = '-'
$(W)_n$ = 'NH', n = 1
$(V)_m$ = 'CO', m = 1
U = phenyl

Scheme 8. (a) 20% piperidine / DMF, 30mins (b) 20eq Fmoc-aminoacid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, o/n (c) 5eq carboxylic acid / 5eq HBTU / 5eq HOBt / 10eq NMM, DMF, RT, o/n (d) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (e) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n (f) TFA / H_2O (95:5, v/v), RT.

Alternatively, carboxylic acids can be prepared in solution by traditional organic chemistry methods and coupled to constructs **(28)** and **(31)** on the solid phase (Schemes 9-13). For example (Scheme 9), treatment in solution of an amino acid, exemplified by **(35)** with sodium nitrite / H_2SO_4, provides the α-hydroxyacid, exemplified by **(36)** (Degerbeck, F. *et al, J. Chem. Soc, Perkin Trans. 1*, 11-14, **1993**). Treatment of α-hydroxyacid, **(36)** with sodium hydride in a dimethylformamide / dichloromethane mixture followed by addition of benzyl bromide, provides (*RS*) 2-benzyloxy-4-methyl-pentanoic acid **(37)**. Coupling of **(37)** to the solid phase construct **(33)** followed by alloc deprotection, benzoylation then cleavage, provides **(38)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = 'O', n = 1, $(V)_m$ = 'CH_2', m = 1, R^{19} and R^{20} = H and U =

phenyl. To those skilled in the practices of organic synthesis, a wide variety of aminoacids such as **(35)** may be converted to the corresponding α-hydroxyacid such as **(36)** following the general conditions detailed. Additionally, benzylbromide may be replaced by any reasonable Ar-$CR^{19}R^{20}$-halide, providing many variations of carboxylic acid **(37)** following the general conditions detailed. In certain instances, it may be advantageous to temporarily protect the carboxylic acid as the methyl ester (for example compound **(43)**, Scheme 11) prior to reaction with the alkylhalide. The ester intermediate is then simply hydrolysed to acid **(37)**. Analogues of **(38)**, exploring a wide range of $(V)_m$ and U in general formula (I) may be prepared through the general conditions detailed in Scheme 9.



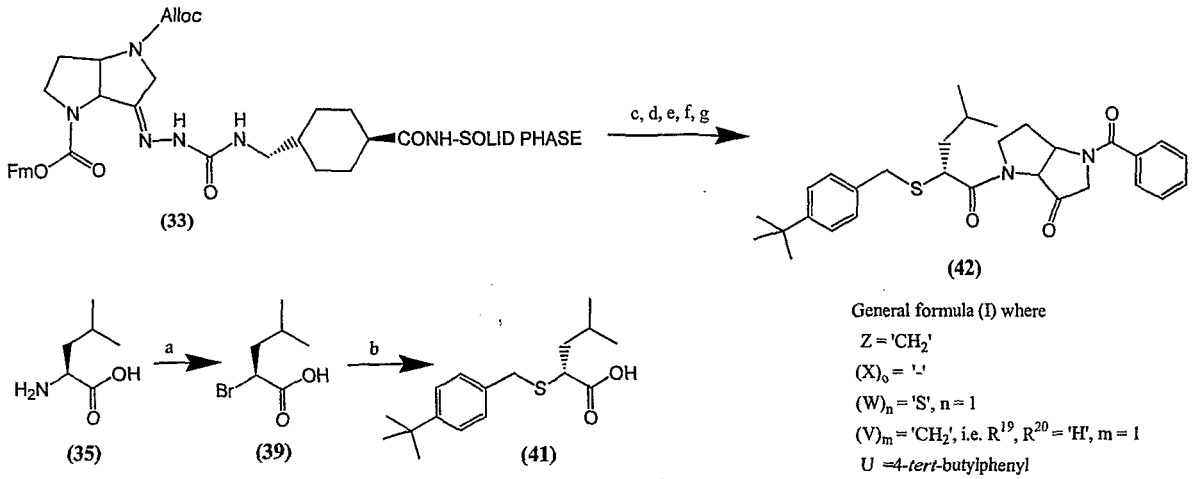
Scheme 9. (a)$NaNO_2$ / H_2SO_4, 0°C→RT, 2hr (b) 2.3eq NaH, 1:1 DMF / DCM, 1.4eq benzylbromide, o/n (c) 20% piperidine / DMF, 30mins. (d) 10eq **(37)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n (e) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (f) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n (g) TFA / H_2O (95:5, v/v), RT.

Since the final synthetic step involves a trifluoroacetic acid (TFA) mediated cleavage of the solid phase bound compound, analogues where the substituted ether is labile to TFA may be prepared in solution by an alternative route (see Scheme 16).

Alternatively, coupling of construct **(33)** (following removal of Fmoc) with the α-hydroxyacid **(36)**, provides a versatile solid phase bound intermediate 'Y'

substituent in general formula (I) that may be reacted with many reagents. For example, the α-hydroxyl can be reacted under Mitsunobu conditions (Hughes, D. L. *Org. React.(N.Y), 42*, 335-656, **1992**) to give ethers (i.e. X = '-', W = 'O', in general formula (I)) (see Grabowska, U. *et al, J. Comb. Chem.*, 2(5), 475-490, **2000**, for an example of Mitsunobu reaction on the solid phase). Alternatively, the α-hydroxyl can be reacted with a carbamoyl chloride to give a carbamate (i.e. X = '-', W = 'O', V = 'NHC(O)', in general formula (I)).

Alternatively, (Scheme 10), treatment in solution of an amino acid, exemplified by **(35)** with sodium nitrite / H_2SO_4 / potassium bromide provides the α-bromoacid, exemplified by **(39)** (Souers, A. J. *et al, Synthesis*, 4, 583-585, **1999**) with retention of configuration. Treatment of α-bromoacid **(39)** with an alkylthiol exemplified by 4-*tert*-butylphenylmethanethiol **(40)** in dimethylformamide / triethylamine, provides 2*R*-(4-*tert*-butylbenzylsulfanyl)-4-methylpropionic acid **(41)**, with inversion of configuration. Coupling of **(41)** to the solid phase construct **(33)** followed by alloc deprotection, benzoylation, then cleavage provides **(42)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = 'S', n = 1, $(V)_m$ = 'CH_2', m = 1, R^{19} and R^{20} = H and U = 4-*tert*-butylphenyl. To those skilled in the practices of organic synthesis, a wide variety of aminoacids such as **(35)** may be converted to the corresponding α-bromoacid such as **(39)** following the general conditions detailed. Additionally, starting with the *R*-isomer of **(35)** gives the *R*-bromoacid analogue of **(39)** and *S*-thioether analogue of **(41)**. Additionally, (4-*tert*-butylphenyl)methanethiol **(40)** may be replaced by any reasonable Ar-$CR^{19}R^{20}$-SH, providing many variations of carboxylic acid **(41)** following the general conditions detailed. Thus analogues of **(42)** exploring a wide range of $(V)_m$ and U in general formula (I) may be prepared through the general conditions detailed in Scheme 10.

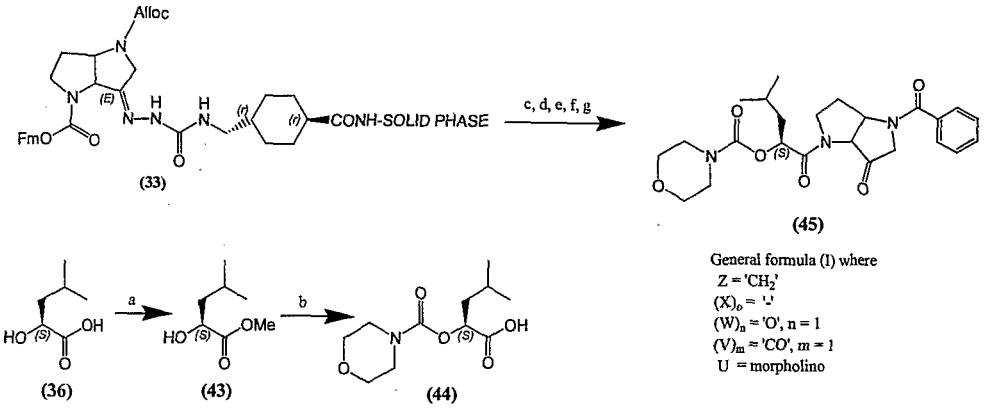


Scheme 10. (a)$NaNO_2$ / H_2SO_4, KBr 0°C→RT, 2hr (b) Alkylthiol **(40)** / DMF / NEt_3, o/n (c) 20% piperidine / DMF, 30mins. (d) 10eq **(41)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n (e) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (f) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n (g) TFA / H_2O (95:5, v/v), RT.

Alternatively, coupling of construct **(33)** (following removal of Fmoc) with an α-bromoacid e.g. **(39)**, provides a versatile intermediate 'Y' substituent in general formula (I) that may be reacted with many reagents. For example, the α-bromide can be displaced with nucleophiles *e.g.* alcohols, thiols, carbanions etc, to give ethers (*i.e.* X = '-', W = 'O', in general formula (I)), thioethers (*i.e.* X = '-', W = 'S', in general formula (I)). The thioethers may optionally be oxidised to the sulphone (see Scheme 14, i.e. X = '-', W = 'SO_2', in general formula (I)) (see Grabowska, U. *et al*, *J. Comb. Chem.*, 2(5), 475-490, **2000**, for an example of bromide displacement and thioether oxidation on the solid phase).

Alternatively, (Scheme 11), treatment of an α-hydroxyacid, exemplified by **(36)** with trimethylsilylchloride and methanol provides the methyl ester **(43)**. Activation of the free hydroxyl to the chloroformate with phosgene in dichloromethane followed by addition of morpholine, then hydrolysis, provides morpholine-4-carboxylic acid 1-carboxy-3-methyl-butyl ester **(44)**. Coupling of **(44)** to the solid phase construct **(33)** followed by alloc deprotection, benzoylation

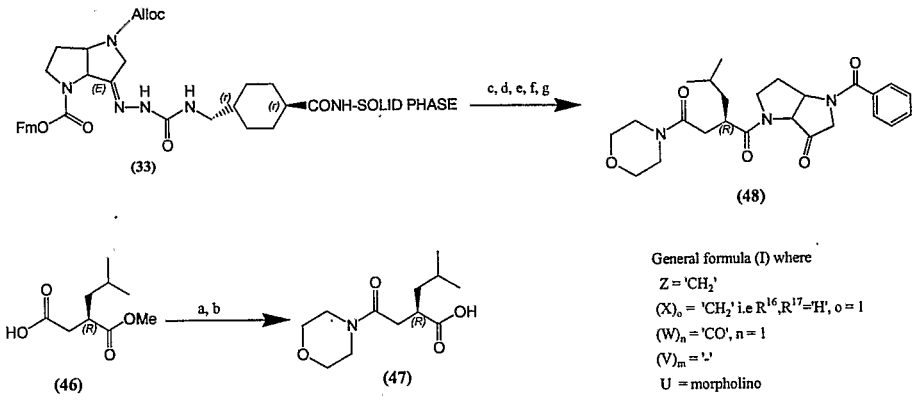
then cleavage provides **(45)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = 'O', n = 1, $(V)_m$ = 'CO' and U = morpholino. To those skilled in the practices of organic synthesis, a wide variety of α-hydroxyacid esters such as **(36)** could be converted to the activated chloroformate following the general conditions detailed. Additionally, morpholine may be replaced by any reasonable amine, providing many variations of carboxylic acid **(44)** following the general conditions detailed. Thus analogues of **(45)** exploring a wide range of $(V)_m$ and U in general formula (I) may be prepared through the general conditions detailed in Scheme 11.



Scheme 11. (a) Me_3SiCl, MeOH, RT, o/n. (b) i. $COCl_2$ / DCM / o/n, ii. Morpholine / DCM 0°C, 2hr, iii. LiOH in H_2O / dioxan, 0°C. (c) 20% piperidine / DMF, 30mins. (d) 10eq **(44)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n. (e) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (f) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n. (g) TFA / H_2O (95:5, v/v), RT.

Alternatively, (Scheme 12), a wide range of alkylsuccinate esters exemplified by 2*R*-isobutyl-succinic acid 1-methyl ester **(46)** are commercially available or readily prepared by known methods (see (a) Azam *et al*, *J. Chem. Soc. Perkin Trans. 1*, 621-, **1996**; (b) Evans *et al*, *J. Chem. Soc. Perkin Trans. 1*, 103, 2127, **1981**; (c) Oikawa *et al*, *Tet. Lett*, 37, 6169, **1996**). Carboxyl activation of alkylsuccinate ester **(46)** followed by addition of morpholine in dimethylformamide and subsequent ester hydroylsis, provides 4-Methyl-2*R*-(2-morpholin-4-yl-2-oxo-ethyl)-pentanoic acid **(47)**. Coupling of **(47)** to the solid phase construct **(33)** followed by alloc deprotection, benzoylation then cleavage

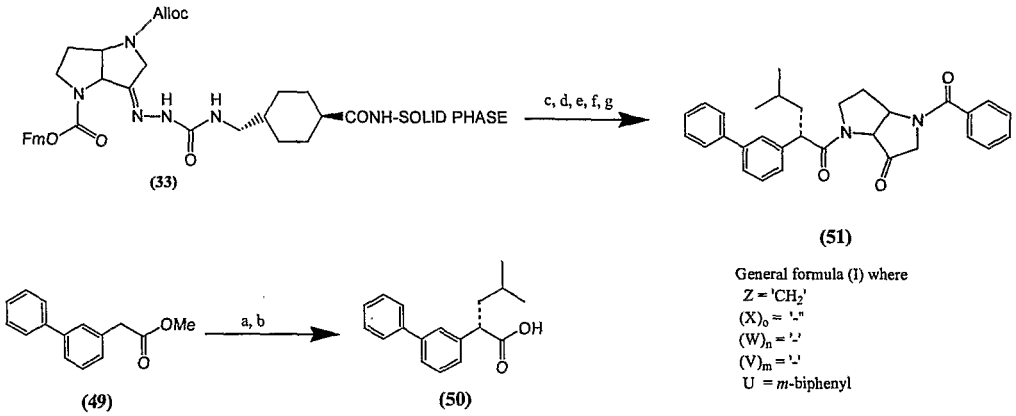
provides **(48)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = 'CH_2', $(W)_n$ = 'CO', n = 1, $(V)_m$ = '-' and U = morpholino. To those skilled in the practices of organic synthesis, a wide variety of alkylsuccinate esters such as **(46)** may be prepared and converted to the corresponding substituted alkylsuccinate acid such as **(47)** following the general conditions detailed. Additionally, morpholine may be replaced by any reasonable amine, providing many variations of carboxylic acid **(47)** following the general conditions detailed. Thus analogues of **(48)** exploring a wide range of $(X)_o$, $(V)_m$ and U in general formula (I) may be prepared through the general conditions detailed in Scheme 12.



Scheme 12. (a) i.EDC / 1-hydroxybenzotriazole /DMF, 0°C, 30mins. ii. Morpholine, RT, o/n (b) LiOH in H_2O / dioxan, 0°C (c) 20% piperidine / DMF, 30mins. (d) 10eq **(47)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n. (e) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (f) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n. (g) TFA / H_2O (95:5, v/v), RT.

Alternatively, (Scheme 13), a wide range of biarylalkylacetic acids, exemplified by 2*RS*-biphenyl-3-yl-4-methylpentanoic acid **(50)** are readily available by known methods (see (a) DesJarlais, R. L. *et al*, *J. Am. Chem. Soc*, 120, 9114-9115, **1998**; (b) Oballa, R. M. *et al*, WO 0149288). Coupling of biarylalkylacetic acid **(50)** to the solid phase construct **(33)** followed by alloc deprotection, benzoylation then cleavage provides **(51)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = '-', $(V)_m$ = '-' and U = *m*-biphenyl. To those skilled in the practices of organic synthesis, a wide variety of biarylalkylacetic acids such as **(50)** may be

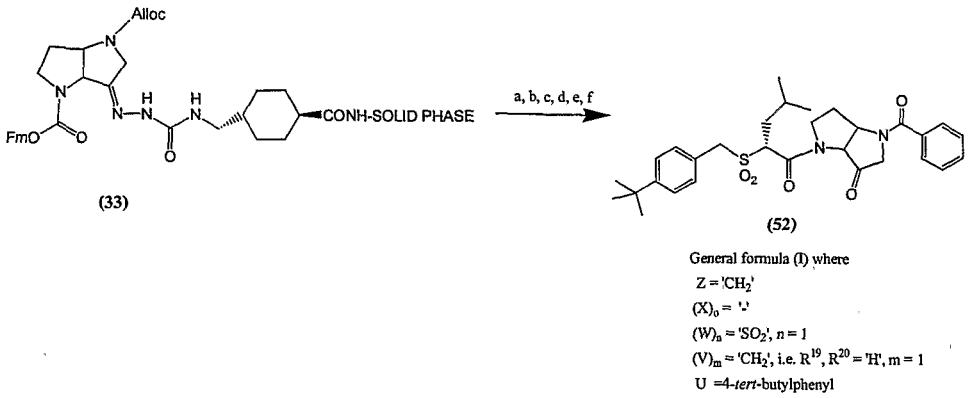
prepared by alkylation of the α-anion of the free acid analogue of **(49)**, which in turn is prepared by Suzuki coupling of phenylboronic acid and 3-bromophenylacetic acid methyl ester. Phenylboronic acid may be replaced by a wide range of arylboronic acids in the Suzuki coupling, providing many variations of carboxylic acid **(50)** following the general conditions detailed. Thus analogues of **(51)** exploring a wide range of group 'U' in general formula (I) may be prepared through the general conditions detailed in Scheme 13.



Scheme 13. (a) LiOH in H_2O / dioxan, 0°C (b) i.LDA, THF, 2-methylpropenylbromide. ii. Pd/C, EtOH, H_2 (c) 20% piperidine / DMF, 30mins. (d) 10eq **(50)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n. (e) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (f) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n. (g) TFA / H_2O (95:5, v/v), RT.

Many other possibilities for solid phase organic chemistry (e.g. see Brown, R. D. *J. Chem. Soc., Perkin Trans.1*, 19, 3293-3320, **1998**, for a review of recent SPOC publications) can be used to derivatise constructs **(28)** and **(31)** towards compounds of general formula (I). For example, the left-hand portion 'U-V-W-X-Y' in general formula (I) can be partially constructed in solution, coupled to constructs **(28)** and **(31)** and further modified on the solid phase. For example (Scheme 14), a simple extension of Scheme 10 is through the oxidation of the intermediate solid phase bound species, with *m*-chloroperbenzoic acid in dichloromethane prior to cleavage, to give the sulphone analogue. Commencing from 2*R*-(4-*tert*-butylbenzylsulfanyl)-4-methylpropionic acid **(41)**, sulphone **(52)**

is prepared, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = 'SO_2', n = 1, $(V)_m$ = 'CH_2', m = 1, R^{19} and R^{20} = H and U = 4-*tert*-butylphenyl. As described in Scheme 10, many variations of carboxylic acid **(41)** may be prepared following the general conditions detailed. Thus analogues of **(52)** exploring a wide range of $(V)_m$ and U in general formula (I) may be prepared through the general conditions detailed in Schemes 10 and 14.



Scheme 14. (a) 20% piperidine / DMF, 30mins. (b) 10eq **(41)** / 10eq HBTU / 10eq HOBt / 20eq NMM, DMF, RT, o/n. (c) Deprotection of Pg_2 Alloc; e.g. TMS-N_3 / TBAF / $(PPh_3)_4Pd^0$ / under N_2. (d) 20eq Benzoic acid / 20eq HBTU / 20eq HOBt / 40eq NMM, DMF, RT, o/n. (e) 5eq *m*-chloroperbenzoic acid / DCM, RT, 5hr. (f) TFA / H_2O (95:5, v/v), RT.

Compounds of general formula (I) are finally released from the solid phase by treatment with trifluoroacetic acid / water, followed by evaporation, lyophylis and standard analytical characterisation.

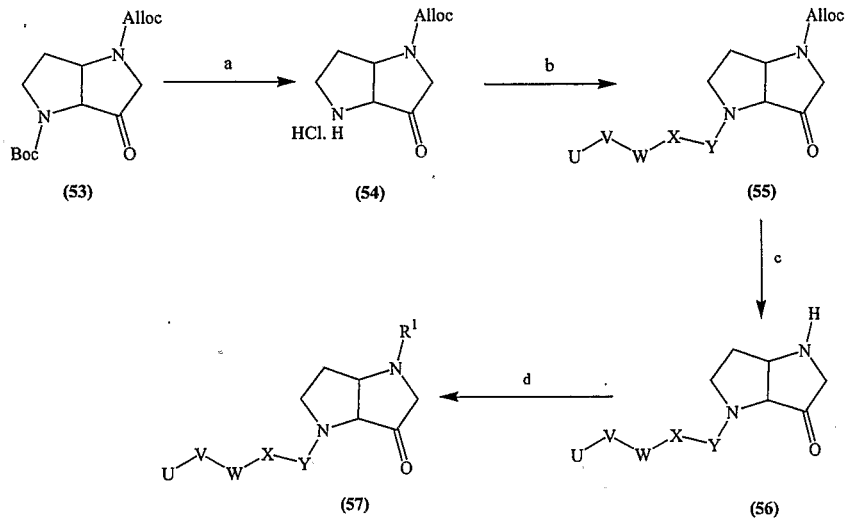
A second strategy for the synthesis of compounds of general formula (I) comprises:-

(a) Preparation of an appropriately functionalised and protected hexahydropyrrolo[3,2-*b*]pyrrol-3-one, hexahydropyrrolo[3,2-*c*]pyrazol-6-one or hexahydro-2-oxa-1,4-diazapentalen-6-one building block in solution.

Preferred protecting groups for solution phase chemistry are the 9-fluorenylmethoxycarbonyl, Nα-*tert*-butoxycarbonyl, Nα-benzyloxy carbonyl and Nα-allyloxycarbonyl group.

(b) Standard organic chemistry methods for the conversion of building block (a) towards compounds of general formula (I).

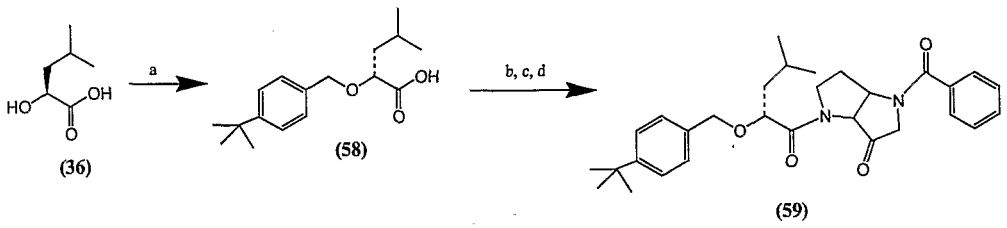
In the simplest example, the entire left hand portion of an inhibitor of general formula (I) can be prepared in solution by traditional organic chemistry methods and coupled to building block (a) (see Scheme 15 exemplified by the use of 3-Oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid allyl ester **(54)**).



Scheme 15. (a) 4M HCl in dioxan, 0°C. (b) Pre-prepared U-V-W-X-Y-COOH / activation e.g. HATU / HOAt / NMM, DMF, RT, o/n. (c) Alloc deprotection e.g. $(PPh_3)_4Pd^0$ / DCM / $PhSiH_3$ (d) Acylation e.g. RCOOH, $^tBuOCOCl$, NMM, DCM, or SO_2Cl / Pyridine.

The general strategy detailed in Scheme 15 is particularly useful when the compound of general formula (I) contains a substituent that is labile to trifluoroacetic acid, this being the final reagent used in each of the solid phase Schemes 6-14. For example (Scheme 16), treatment in solution of α-hydroxyacid **(36)** with sodium hydride in a dimethylformamide / dichloromethane mixture followed by addition of 4-*tert*-butylbenzyl bromide, provides 2*RS*-(4-*tert*-

butylbenzyloxy)-4-methylpentanoic acid **(58)**. Coupling of **(58)** to hydrochloride salt **(54)**, followed by alloc deprotection then benzoylation provides **(59)**, an example of general formula (I) where Z = 'CH_2', $(X)_o$ = '-', $(W)_n$ = 'O', n = 1, $(V)_m$ = 'CH_2', m = 1, R^{19} and R^{20} = H and U = 4-*tert*-butylphenyl. To those skilled in the practices of organic synthesis, 4-*tert*-butylbenzyl bromide may be replaced by any reasonable Ar-$CR^{19}R^{20}$-halide, providing many variations of carboxylic acid **(58)** under the conditions shown. Thus analogues of **(59)** exploring a wide range of $(V)_m$ and U in general formula (I) may be prepared through the conditions detailed in Scheme 16.



Scheme 16. (a)2.2eq NaH, 1:1 DMF / DCM, 1.25eq 4-*tert*-benzylbromide. (b)1eq **(58)**, 1eq ^{i}BuOCOCl, 2eq NMM, DCM, -15°C, 1hr, under nitrogen, then 1eq, **(54)**, RT, o/n. (c) Alloc deprotection e.g. $(PPh_3)_4Pd^0$ / DCM / $PhSiH_3$ (d) Acylation e.g. RCOOH, ^{i}BuOCOCl, NMM, DCM, or SO_2Cl / Pyridine.

A third strategy for the synthesis of compounds of general formula (I) where the addition of U-V-W-X-Y to the protected building block involves multistep organic reactions comprises:-

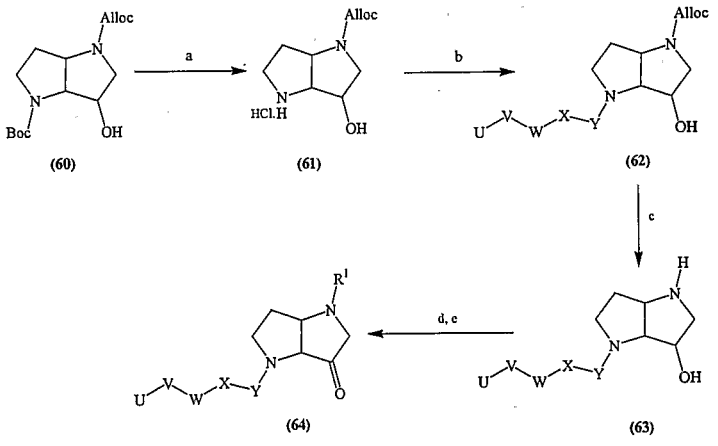
(a) Preparation of an appropriately functionalised and protected hexahydropyrrolo[3,2-*b*]pyrrol-3-one, hexahydropyrrolo[3,2-*c*]pyrazol-6-one or hexahydro-2-oxa-1,4-diazapentalen-6-one building block in solution.

Preferred protecting groups for solution phase chemistry are the 9-fluorenylmethoxycarbonyl, Nα-*tert*-butoxycarbonyl, Nα-benzyloxy carbonyl and Nα-allyloxycarbonyl group.

(b) Protection of the ketone functionality of the hexahydropyrrolo[3,2-*b*]pyrrol-3-one, hexahydropyrrolo[3,2-*c*]pyrazol-6-one or hexahydro-2-oxa-1,4-diaza pentalen-6-one building block e.g. as a dimethylacetal. Alternatively, the reduced ketone (achiral secondary alcohols **(13)**, **(20)** and **(25)**) intermediates may be used and re-oxidised as the final synthetic step.

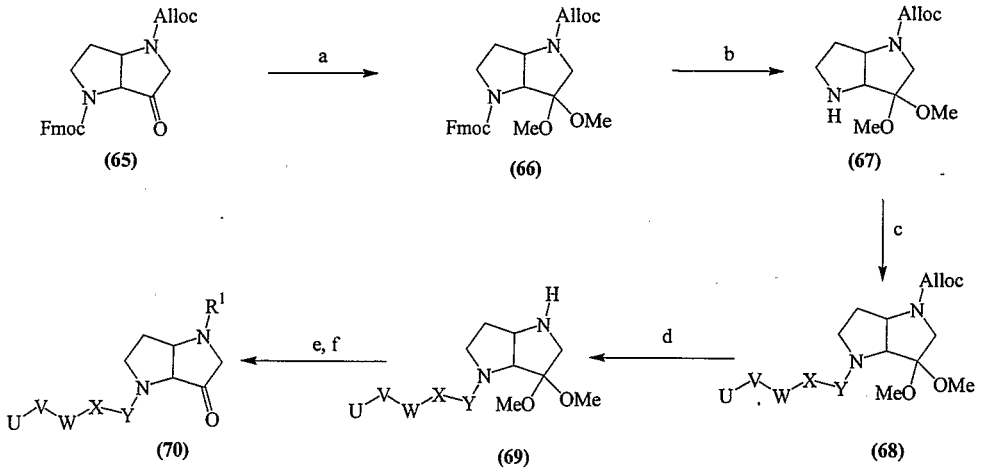
(c) Standard organic chemistry methods for the conversion of building block (b) towards compounds of general formula (I).

Intermediates may be prepared in solution, followed by coupling to building block (b) and further derivitisation towards compounds of general formula (I) (see Scheme 17 exemplified by preparation and use of the 3-Hydroxy-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid allyl ester **(61)**).



Scheme 17. (a) 4M HCl in dioxan, 0°C. (b) Stepwise reaction with intermediates of Y, then X, then W etc., to stepwise construct compounds **(62)**. (c) Alloc deprotection e.g. $(PPh_3)_4Pd^0$ / DCM / $PhSiH_3$ (d) Acylation e.g. RCOOH, $^tBuOCOCl$, NMM, DCM, or SO_2Cl / Pyridine. (e) Oxidation, e.g. Dess-Martin periodane, CH_2Cl_2.

Alternatively, depending upon the types of chemistry used to construct the left hand side U-V-W-X-Y of compounds of general formula (I), the ketone may require protection e.g. as the dimethyl acetal. Such a method is detailed and exemplified in Scheme 18 by the preparation and use of 3,3-Dimethoxy-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid allyl ester **(66)**.



Scheme 18. (a) Triethylorthoformate / pTSA / MeOH. (b) Fmoc deprotection, e.g. Solid supported piperidine / DMF (c) Stepwise reaction with intermediates of Y, then X, then W etc., to stepwise construct compounds **(68)**. (d) Alloc deprotection e.g. $(PPh_3)_4Pd^0$ / DCM / $PhSiH_3$ (e) Acylation e.g. RCOOH, $^iBuOCOCl$, NMM, DCM, or SO_2Cl / Pyridine. (f) Trifluoroacetic acid / CH_2Cl_2 / H_2O.

The invention extends to novel intermediates as described above, and to processes for preparing compounds of general formula (I) from each of their immediate precursors. In turn, processes for preparing intermediates from their immediate precursors also form part of the invention.

Compounds of general formula (I) are useful both as laboratory tools and as therapeutic agents. In the laboratory certain compounds of the invention are useful in establishing whether a known or newly discovered cysteine protease contributes a critical or at least significant biochemical function during the establishment or progression of a disease state, a process commonly referred to as 'target validation'.

According to a second aspect of the invention, there is provided a method of validating a known or putative cysteine protease inhibitor as a therapeutic target, the method comprising:

(a) assessing the *in vitro* binding of a compound as described above to an isolated known or putative cysteine protease, providing a measure of potency; and optionally, one or more of the steps of:

(b) assessing the binding of the compound to closely related homologous proteases of the target and general house-keeping proteases (e.g. trypsin) to provides a measure of selectivity;

(c) monitoring a cell-based functional marker of a particular cysteine protease activity, in the presence of the compound; and

(d) monitoring an animal model-based functional marker of a particular cysteine protease activity in the presence of the compound.

The invention therefore provides a method of validating a known or putative cysteine protease inhibitor as a therapeutic target. Differing approaches and levels of complexity are appropriate to the effective inhibition and 'validation' of a particular target. In the first instance, the method comprises assessing the *in vitro* binding of a compound of general formula (I) to an isolated known or putative cysteine protease, providing a measure of 'potency'. An additional assessment of the binding of a compound of general formula (I) to closely related homologous proteases of the target and general house-keeping proteases (e.g. trypsin) provides a measure of 'selectivity'. A second level of complexity may be assessed by monitoring a cell-based functional marker of a particular cysteine protease activity, in the presence of a compound of general formula (I). For example, a 'human osteoclast resorption assay' has been utilised as a cell-based secondary *in vitro* testing system for monitoring the activity of cathepsin K and the biochemical

effect of protease inhibitors (e.g. see WO-A-9850533). An 'MHC-II processing – T-cell activation assay' has been utilised as a cell-based secondary *in vitro* testing system for monitoring the activity of cathepsin S and the biochemical effect of protease inhibitors (Shi, G-P., *et al*, *Immunity,* 10, 197-206, **1999**). When investigating viral or bacterial infections such a marker could simply be a functional assessment of viral (e.g. count of mRNA copies) or bacterial loading and assessing the biochemical effect of protease inhibitors. A third level of complexity may be assessed by monitoring an animal model-based functional marker of a particular cysteine protease activity, in the presence of a compound of general formula (I). For example, murine models of *Leishmania* infection, *P. vinckei* infection, malaria (inhibition of falcipain) and *T. cruzi* infection (cruzipain), indicate that inhibition of cysteine proteases that play a key role in pathogen propagation is effective in arresting disease symptoms, 'validating' said targets.

The invention therefore extends to the use of a compound of general formula (I) in the validation of a known or putative cysteine protease inhibitor as a therapeutic target.

Compounds of general formula (I) are useful for the *in vivo* treatment or prevention of diseases in which participation of a cysteine protease is implicated.

According to a third aspect of the invention, there is provided a compound of general formula (I) for use in medicine, especially for preventing or treating diseases in which the disease pathology may be modified by inhibiting a cysteine protease.

According to a fourth aspect of the invention, there is provided the use of a compound of general formula (I) in the preparation of a medicament for preventing or treating diseases in which the disease pathology may be modified by inhibiting a cysteine protease.

Certain cysteine proteases function in the normal physiological process of protein degradation in animals, including humans, *e.g.* in the degradation of connective tissue. However, elevated levels of these enzymes in the body can result in pathological conditions leading to disease. Thus, cysteine proteases have been implicated in various disease states, including but not limited to, infections by *Pneumocystis carinii*, *Trypsanoma cruzi*, *Trypsanoma brucei brucei* and *Crithidia fusiculata*; as well as in osteoporosis, autoimmunity, schistosomiasis, malaria, tumour metastasis, metachromatic leukodystrophy, muscular dystrophy, amytrophy, and the like. See WO-A-9404172 and EP-A-0603873 and references cited in both of them. Additionally, a secreted bacterial cysteine protease from *S. Aureus* called staphylopain has been implicated as a bacterial virulence factor (Potempa, J., *et al. J. Biol. Chem*, 262(6), 2664-2667, **1998).**

The invention is useful in the prevention and/or treatment of each of the disease states mentioned or implied above. The present invention also is useful in a methods of treatment or prevention of diseases caused by pathological levels of cysteine proteases, particularly cysteine proteases of the papain superfamily, which methods comprise administering to an animal, particularly a mammal, most particularly a human, in need thereof a compound of the present invention. The present invention particularly provides methods for treating diseases in which cysteine proteases are implicated, including infections by *Pneumocystis carinii*, *Trypsanoma cruzi*, *Trypsanoma brucei*, *Leishmania mexicana*, *Clostridium histolyticum*, *Staphylococcus aureus*, foot-and-mouth disease virus and *Crithidia fusiculata*; as well as in osteoporosis, autoimmunity, schistosomiasis, malaria, tumour metastasis, metachromatic leukodystrophy, muscular dystrophy and amytrophy.

Inhibitors of cathepsin K, particularly cathepsin K-specific compounds, are useful for the treatment of osteoporosis, Paget's disease, gingival diseases such as gingivitis and periodontitis, hypercalaemia of malignancy, metabolic bone disease, diseases involving matrix or cartilage degradation, in particular osteoarthritis and rheumatoid arthritis and neoplastic diseases.

In accordance with this invention, an effective amount of a compound of general formula (I) may be administered to inhibit the protease implicated with a particular condition or disease. Of course, this dosage amount will further be modified according to the type of administration of the compound. For example, to achieve an "effective amount" for acute therapy, parenteral administration of a compound of general formula (I) is preferred. An intravenous infusion of the compound in 5% dextrose in water or normal saline, or a similar formulation with suitable excipients, is most effective, although an intramuscular bolus injection is also useful. Typically, the parenteral dose will be about 0.01 to about 100 mg/kg; preferably between 0.1 and 20 mg/kg, in a manner to maintain the concentration of drug in the plasma at a concentration effective to inhibit a cysteine protease. The compounds may be administered one to four times daily at a level to achieve a total daily dose of about 0.4 to about 400 mg/kg/day. The precise amount of an inventive compound which is therapeutically effective, and the route by which such compound is best administered, is readily determined by one of ordinary skill in the art by comparing the blood level of the agent to the concentration required to have a therapeutic effect. Prodrugs of compounds of the present invention may be prepared by any suitable method. For those compounds in which the prodrug moiety is a ketone functionality, specifically ketals and/or hemiacetals, the conversion may be effected in accordance with conventional methods.

The compounds of this invention may also be administered orally to the patient, in a manner such that the concentration of drug is sufficient to inhibit bone resorption or to achieve any other therapeutic indication as disclosed herein. Typically, a pharmaceutical composition containing the compound is administered at an oral dose of between about 0.1 to about 50 mg/kg in a manner consistent with the condition of the patient. Preferably the oral dose would be about 0.5 to about 20 mg/kg.

No unacceptable toxicological effects are expected when compounds of the present invention are administered in accordance with the present invention. The compounds of this invention, which may have good bioavailability, may be tested in one of several biological assays to determine the concentration of a compound which is required to have a given pharmacological effect.

According to a fifth aspect of the invention, there is provided a pharmaceutical or veterinary composition comprising one or more compounds of general formula (I) and a pharmaceutically or veterinarily acceptable carrier. Other active materials may also be present, as may be considered appropriate or advisable for the disease or condition being treated or prevented.

The carrier, or, if more than one be present, each of the carriers, must be acceptable in the sense of being compatible with the other ingredients of the formulation and not deleterious to the recipient.

The formulations include those suitable for rectal, nasal, topical (including buccal and sublingual), vaginal or parenteral (including subcutaneous, intramuscular, intravenous and intradermal) administration, but preferably the formulation is an orally administered formulation. The formulations may conveniently be presented in unit dosage form, e.g. tablets and sustained release capsules, and may be prepared by any methods well known in the art of pharmacy.

Such methods include the step of bringing into association the above defined active agent with the carrier. In general, the formulations are prepared by uniformly and intimately bringing into association the active agent with liquid carriers or finely divided solid carriers or both, and then if necessary shaping the product. The invention extends to methods for preparing a pharmaceutical composition comprising bringing a compound of general formula (I) in conjunction or association with a pharmaceutically or veterinarily acceptable carrier or vehicle.

Formulations for oral administration in the present invention may be presented as: discrete units such as capsules, cachets or tablets each containing a predetermined amount of the active agent; as a powder or granules; as a solution or a suspension of the active agent in an aqueous liquid or a non-aqueous liquid; or as an oil-in-water liquid emulsion or a water in oil liquid emulsion; or as a bolus etc.

For compositions for oral administration (e.g. tablets and capsules), the term "acceptable carrier" includes vehicles such as common excipients e.g. binding agents, for example syrup, acacia, gelatin, sorbitol, tragacanth, polyvinylpyrrolidone (Povidone), methylcellulose, ethylcellulose, sodium carboxymethylcellulose, hydroxypropylmethylcellulose, sucrose and starch; fillers and carriers, for example corn starch, gelatin, lactose, sucrose, microcrystalline cellulose, kaolin, mannitol, dicalcium phosphate, sodium chloride and alginic acid; and lubricants such as magnesium stearate, sodium stearate and other metallic stearates, glycerol stearate stearic acid, silicone fluid, talc waxes, oils and colloidal silica. Flavouring agents such as peppermint, oil of wintergreen, cherry flavouring and the like can also be used. It may be desirable to add a colouring agent to make the dosage form readily identifiable. Tablets may also be coated by methods well known in the art.

A tablet may be made by compression or moulding, optionally with one or more accessory ingredients. Compressed tablets may be prepared by compressing in a suitable machine the active agent in a free flowing form such as a powder or granules, optionally mixed with a binder, lubricant, inert diluent, preservative, surface-active or dispersing agent. Moulded tablets may be made by moulding in a suitable machine a mixture of the powdered compound moistened with an inert liquid diluent. The tablets may be optionally be coated or scored and may be formulated so as to provide slow or controlled release of the active agent.

Other formulations suitable for oral administration include lozenges comprising the active agent in a flavoured base, usually sucrose and acacia or tragacanth; pastilles comprising the active agent in an inert base such as gelatin and glycerin,

or sucrose and acacia; and mouthwashes comprising the active agent in a suitable liquid carrier.

Parenteral formulations will generally be sterile.

According to a sixth aspect of the invention, there is provided a process for the preparation of a pharmaceutical or veterinary composition as described above, the process comprising bringing the active compound(s) into association with the carrier, for example by admixture.

Preferred features for each aspect of the invention are as for each other aspect *mutatis mutandis*.

Experimental Procedures

Solution Phase Chemistry – General Methods

All solvents were purchased from ROMIL Ltd (Waterbeach, Cambridge, UK) at SpS or Hi-Dry grade unless otherwise stated. General peptide synthesis reagents were obtained from Chem-Impex Intl. Inc. (Wood Dale IL 60191. USA). Thin layer chromatography (TLC) was performed on pre-coated plates (Merck aluminium sheets silica 60 F254, part no. 5554). Visualisation of compounds was achieved under ultraviolet light (254nm) or by using an appropriate staining reagent. Flash column purification was performed on silica gel 60 (Merck 9385) or Isolute Flash silica cartridge. All analytical HPLC were obtained on Phenomenex Jupiter C_4, 5μ, 300A, 250 x 4.6mm, using mixtures of solvent A = 0.1%aq trifluoroacetic acid (TFA) and solvent B = 90% acetonitrile / 10% solvent A on automated Agilent systems with 215 and / or 254nm UV detection. Unless otherwise stated a gradient of 10 – 90% B in A over 25 minutes at 1.5mL / min was performed for full analytical HPLC analysis. HPLC-MS analysis was performed on an Agilent 1100 series LC/MSD, using automated Agilent HPLC

systems, with a gradient of 10 – 90% B in A over 10 minutes on Phenomenex Columbus C_8, 5μ, 300A, 50 x 2.0mm at 0.4mL / min. Nuclear magnetic resonance (NMR) were obtained on a Bruker DPX400 (400MHz 1H frequency; QXI probe) or Bruker DPX500 (500MHz 1H frequency) in the solvents and temperature indicated (298K unless otherwise stated). Chemical shifts are expressed in parts per million (δ) and are referenced to residual signals of the solvent. Coupling constants (*J*) are expressed in Hz. High resolution mass spectrometry was performed on a Micromass QTOF 1.

Solid Phase Chemistry – General Methods

Example inhibitors were prepared through a combination of solution and solid phase Fmoc-based chemistries (see 'Solid Phase Peptide Synthesis', Atherton, E. and Sheppard, R. C., IRL Press Ltd, Oxford, UK, **1989**, for a general description). An appropriately protected and functionalised building block was prepared in solution (e.g. general compound **(6)**, Scheme 6), then reversibly attached to the solid phase through an appropriate linker followed by rounds of coupling / deprotection / chemical modification (Scheme 6). Example inhibitors were then released (cleaved) from the solid phase, analysed, purified and assayed for inhibition verses a range of proteases.

Generally, multipins (polyamide 1.3 → 10μmole loadings, see www.mimotopes.com) were used for the solid phase synthesis, although any suitable solid phase surface could be chosen. In general, the 1.3μmole gears were used to provide small scale crude examples for preliminary screening, whilst the 10μmole crowns were used for scale-up synthesis and purification of preferred examples. Standard coupling and Fmoc deprotection methods were employed (see Grabowska, U. *et al*, *J. Comb. Chem.* 2(5), 475-490, **2000**. for a thorough description of solid phase multipin methodologies).

Preparation of Initial Assembly

Building Block-linker constructs (e.g. **(27)**, typically 10mg to 100mg) were carboxyl activated with 2-(1H-benzotriazole-1-yl)-1,1,3,3-tetramethyluronium hexafluoro phosphate (HBTU, 1 mole equivalent), 1-hydroxybenzotriazole.hydrate (HOBT, 1 mole equivalent) and N-methylmorpholine (NMM, 2 mole equivalents) in dimethylformamide (DMF, typically 1 to 10mL) for 5 minutes. Amino functionalised DA/MDA crowns or HEMA gears (10μmole per crown / 1.2μmole per gear, 0.33 mole equivalent of total surface amino functionalisation compared to activated construct) were added, followed by additional DMF to cover the solid phase surface. The loading reaction was left overnight. Following overnight loading, crowns / gears were taken through standard cycles washing, Fmoc deprotection and loading quantification (see Grabowska, U. *et al*) to provide loaded Building Block-linker constructs (e.g.**(28)**).

Coupling Cycles

The coupling of standard Fmoc-aminoacids (10 or 20 mole equivalent) were performed via carboxyl activated with 2-(1H-benzotriazole-1-yl)-1,1,3,3-tetramethyluronium hexafluoro phosphate (HBTU, 10 or 20mole equivalent), 1-hydroxybenzotriazole.hydrate (HOBT, 10 or 20mole equivalent) and N-methylmorpholine (NMM, 20 or 40mole equivalents) in dimethylformamide, with pre-activation for 5 minutes. Activated species were dispensed to the appropriate wells of a polypropylene 96-well plate (Beckman, 1mL wells, 500μL solution per well for crowns or 250μL solution per well for gears) in a pattern required for synthesis. Loaded free amino Building Block-linker constructs (e.g.**(28)**) were added and the coupling reaction left overnight. Following overnight coupling, crowns / gears were taken through standard cycles washing and Fmoc deprotection (see Grabowska, U. *et al*). Identical activation and coupling conditions were used for the coupling of a range of carboxylic acids (R-COOH). Alternatively, chloroformates e.g. morpholine-4-carbonylchloride (10mole equivalent), were coupled in DMF with the addition of NMM (10mole equivalents).

Acidolytic Cleavage Cycle

A mixture of 95% TFA / 5% water was pre-dispensed into two polystyrene 96-well plates (Beckman, 1mL wells, 600μL solution per well for crowns or 300μL solution per well for gears) in a pattern corresponding to that of the synthesis. The completed multipin assembly was added to the first plate (mother plate), the block covered in tin foil and cleaved for 2 hours. The cleaved multipin assembly was then removed from the first plate and added to the second plate (washing plate) for 15 minutes. The spent multipin assembly was then discarded and the mother / washing plates evaporated on an HT-4 GeneVac plate evaporator.

Analysis and Purification of Cleaved Examples

(a) Ex 1.2μmole Gears. 100μL dimethylsulphoxide (DMSO) was added to each post cleaved and dried washing plate well, thoroughly mixed, transferred to the corresponding post cleaved and dried mother plate well and again thoroughly mixed. 10μL of this DMSO solution was diluted to 100μL with a 90% acetonitrile / 10% 0.1%aq TFA mixture. 20μL aliquots were analysed by HPLC-MS and full analytical HPLC. In each case the crude example molecules gave the expected $[M + H]^+$ ion and an HPLC peak at > 80% (by 215nm UV analysis). This provided an approximately 10mM DMSO stock solution of good quality crude examples for preliminary protease inhibitory screening.

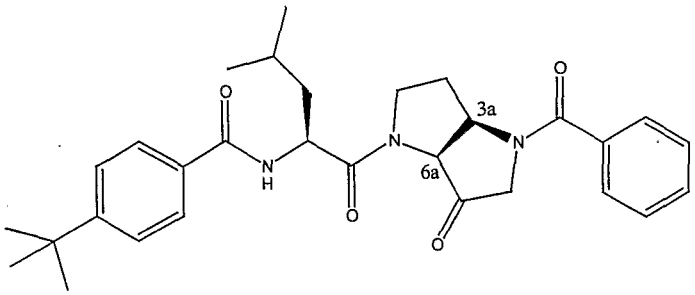
(b) Ex 10μmole Crowns. 500μL of a 90% acetonitrile / 10% 0.1%aq TFA mixture was added to each washing plate well, thoroughly mixed, transferred to the corresponding mother plate well and again thoroughly mixed. 5μL of this solution was diluted to 100μL with a 90% acetonitrile / 10% 0.1%aq TFA mixture. 20μL aliquots were analysed by HPLC-MS and full analytical HPLC. In each case the crude example molecules gave the expected $[M + H]^+$ ion and an HPLC peak at > 80% (by 215nm UV analysis). The polystyrene blocks containing crude examples were then lyophilised.

(c) Individual examples (ex (b)) were re-dissolved in a 1 : 1 mixture of 0.1% aq TFA / acetonitrile (1mL) and purified by semi-preparative HPLC (Phenomenex Jupiter C_4, 5μ, 300A, 250 x 10mm, a 25-90% B in A gradient over 25mins, 4.0mL/min, 215nm UV detection). Fractions were lyophilised into pre-tarred glass sample vials to provide purified examples (typically 2 to 4mg, 40 to 80% yield).

(d) Purified examples were dissolved in an appropriate volume of DMSO to provide a 10mM stock solution, for accurate protease inhibitory screening.

EXAMPLES 1 – 248 were prepared using the general solid phase descriptions above and are inhibitors of cathepsin K with Ki ranging from 1-5000nM;

EXAMPLE 1. (3*aR*, 6*aS*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butylbenzamide



Following the general details from Scheme 1, the required bicycle building block (3a*S*,6a*R*) 3-Oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1,4-dicarboxylic acid 1-tert-butyl ester 4-(9H-fluoren-9ylmethyl) ester **(6)** was prepared in 8 steps as follows;

(1) Preparation of (2*S*,3*S*) 3-hydroxypyrrolidine-1,2-dicarboxylic acid 1-(9H-fluoren-9-ylmethyl) ester.

Trans-3-hydroxy-L-proline (10.0g, 76.3mmole) was added to a vigorously stirred, ice-cooled solution of sodium carbonate (16.90g, 160.2mmole) in water (100mL). 1,4-Dioxan (75mL) was added providing an opaque but

mobile mixture. 9-Fluorenylmethyl chloroformate (20.31g, 80mmole) in 1,4-dioxan (75mL) was added over 1hr, then the ice-cooling removed and the mixture stirred at RT for an additional 2hr. Additional water (300mL) was added, the reaction mixture washed with chloroform (2 x 250mL) and the combined organic layers discarded. The aqueous phase was acidified with 1N HCl to ~ pH 2, providing a thick opaque mixture. The acidified aqueous mixture was extracted with chloroform (2 x 500mL) and the now clear aqueous phase discarded. The opaque combined chloroform layers were dried (Na_2SO_4), filtered and reduced in vacuo to provide batch 1 (5.70g). The residual precipitate (a mixture of product and drying agent) was triturated with hot methanol (2 x 250mL) and the combined methanol solutions reduced in vacuo to provide batch 2 (10.25g). Batch 1 and 2 were individually analysed by TLC (single UV spot, Rf = 0.15, 20% MeOH in $CHCl_3$), and HPLC-MS (single main UV peak with Rt = 7.069mins, 354.2 $[M + H]^+$, 376.2 $[M + Na]^+$) and found to be identical, giving a combined yield of 15.95g (45.2mmole, 59.2%). Analysis by ^1H and ^{13}C NMR showed the presence of cis and trans geometrical isomers around the 3° amide bond.

δ_H (DMSO-d_6 at 298K); 1.80-2.02 ($2H_\gamma$, m), 3.49-3.62 ($2H_\delta$, m), 4.12-4.38 (H_α, H_β, Fmoc H-9 and $C\underline{H}_2$, m), 5.55/5.62 ($O\underline{H}$), 7.30-7.31 (2H aromatic, Fmoc H-2 and H-7), 7.35-7.37 (2H aromatic, Fmoc H-3 and H-6), 7.43-7.45 (2H aromatic, Fmoc H-1 and H-8), 7.63-7.65 (2H aromatic, Fmoc H-4 and H-5), 12.8-13.0 ($COO\underline{H}$); δ_C (DMSO-d_6 at 298K); 31.70/32.70 (d, C_γ), 44.68/45.32 (d, C_δ), 46.94/46.97 (u, Fmoc C-9), 67.04/67.33 (d, Fmoc $\underline{C}H_2$), 68.24/68.51 (u, C_α), 73.12/74.23 (u, C_β), 120.49/120.52 (u, Fmoc C-4 and C-5), 125.49/125.58 (u, Fmoc C-1 and C-8), 127.50 (u, Fmoc C-2 and C-7), 128.04 (u, Fmoc C-3 and C-6), 140.99/141.09 (q, Fmoc C-4' and C-5'), 144.02/144.16 (q, Fmoc C-1' and C-8'), 154.33/154.54 (q, $O\underline{C}ON$), 172.10/172.39 ($\underline{C}OOH$).

(2) Preparation of (2*S*,3*R*) 3-hydroxypyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-(9H-fluoren-9-ylmethyl) ester.

(2*S*,3*S*) (3-hydroxy)pyrrolidine-1,2-dicarboxylic acid 1-(9H-fluoren-9-ylmethyl) ester (10.9g, 30.8mmole) was dissolved in toluene (75mL) in a Dean-Stark apparatus. Allyl alcohol (20mL) was added followed by *p*-toluenesulphonic acid.hydrate (6.05g, 31.4mmole). The mixture was refluxed for 1hr, cooled and $CHCl_3$ (300mL) added. The organic layer was washed with $NaHCO_3$ (300mL), 0.1N HCl (300mL) and brine (300mL), then dried (Na_2SO_4). Filtration and reduction in vacuo gave a pale yellow foam (13.5g). The crude foam was purified over silica gel (150g) eluting with a gradient of heptane : ethyl acetate 3:1 → 1:1. Desired fractions were combined and reduced in vacuo to a colourless gum yield 10.34g (26.3mmole, 85.4%). TLC (single UV spot, Rf = 0.30, heptane : ethyl acetate 1:1), analytical HPLC Rt = 18.849mins, HPLC-MS (single main UV peak with Rt = 8.354mins, 394.2 $[M + H]^+$, 416.2 $[M + Na]^+$). Analysis by ^1H and ^{13}C NMR showed the presence of cis and trans geometrical isomers around the 3° amide bond.

δ_H ($CDCl_3$ at 298K); 2.00-2.21 ($2H_\gamma$, m), 2.70/2.85 (O<u>H</u>, b), 3.72-3.81 ($2H_\delta$, m), 4.12-4.67 (H_α, H_β, Fmoc H-9 and C<u>H</u>$_2$, 2 x COOC<u>H</u>$_2$CH=CH$_2$, m), 5.20-5.40 (2 x COOCH$_2$CH=C<u>H</u>$_2$, m), 5.82-5.99 (1 x COOCH$_2$C<u>H</u>=CH$_2$, m), 7.28-7.33 (2H aromatic, Fmoc H-2 and H-7), 7.34-7.41 (2H aromatic, Fmoc H-3 and H-6), 7.53-7.66 (2H aromatic, Fmoc H-1 and H-8), 7.77-7.81 (2H aromatic, Fmoc H-4 and H-5); δ_C ($CDCl_3$ at 298K); 32.28/33.04 (d, C_γ), 44.98/45.32 (d, C_δ), 47.56/47.63 (u, Fmoc C-9), 66.44 (d, COO<u>C</u>H$_2$CH=CH$_2$), 68.01/68.11 (d, Fmoc <u>C</u>H$_2$), 68.32/68.72 (u, C_α), 74.49/75.67 (u, C_β), 119.20/119.48 (d, COOCH$_2$CH=<u>C</u>H$_2$), 120.34/120.37 (u, Fmoc C-4 and C-5), 125.36/125.60 (u, Fmoc C-1 and C-8), 127.47 (u, Fmoc C-2 and C-7), 128.06/128.12 (u, Fmoc C-3 and C-6), 131.79/131.94 (u, COOCH$_2$<u>C</u>H=CH$_2$), 141.65/141.71 (q, Fmoc C-4' and

C-5'), 144.12/144.34 (q, Fmoc C-1' and C-8'), 155.13/155.59 (q, O<u>C</u>ON), 170.53/170.55 (<u>C</u>OOCH$_2$CH=CH$_2$).

(3) Preparation of (2*S*,3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-(9H-fluoren-9-ylmethyl) ester.

Diethyl azodicarboxylate (1.24 ml, 7.9 mmol) was added dropwise over 20 minutes to a stirred solution of triphenylphosphine (2.07 g, 7.9 mmol) in tetrahydrofuran (30 ml) at 0°C. The mixture was stirred for 5 minutes at 0°C then a solution of (2*S*, 3*S*)-3-hydroxypyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-(9*H*-fluoren-9-ylmethyl) ester (2.59 g, 6.6 mmol) and hydrazoic acid (14.3 ml of 0.7M solution in toluene) in tetrahydrofuran (30 ml) was added dropwise over 35 minutes. The mixture was stirred for 5 minutes at 0°C then at ambient temperature for 14 hours. The solvent was removed *in vacuo* and the residue purified by flash chromatography over silica gel eluting with a gradient of heptane : ethyl acetate 5:1 → 3:1. Appropriate fractions were combined and the solvents removed *in vacuo* to obtain (2*S*, 3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid allyl ester 1-(9*H*-fluoren-9-ylmethyl) ester as a colourless oil (1.45 g, 53%). TLC (single UV spot, Rf = 0.30, heptane : ethyl acetate 3:1), analytical HPLC main UV peak with Rt = 19.896mins and HPLC-MS 419.2 $[M+H]^+$, 441.2 $[M+Na]^+$.

δ_H ($CDCl_3$ at 298K); 2.08-2.25 (2H, H-4, m), 3.52-3.59 (1H, H-5, m), 3.68-3.76 (1H, H-5, m), 4.15 (0.5H, Fmoc-C<u>H</u>$_2$, t, *J* = 6.6Hz), 4.24 (0.5H, Fmoc-C<u>H</u>$_2$, t, *J* = 7.1Hz), 4.33-4.38 (2H, H-3 and Fmoc-C<u>H</u>, m), 4.44-4.48 (1.5H, 0.5H-2 and Fmoc-C<u>H</u>, m), 4.51-4.66 (1.5H, 0.5H-2 and C<u>H</u>$_2$CH=CH$_2$, m), 4.67-4.70 (1H, C<u>H</u>$_2$CH=CH$_2$, m), 5.21-5.40 (2H, CH$_2$CH=C<u>H</u>$_2$, m), 5.84-5.98 (1H, CH$_2$C<u>H</u>=CH$_2$, m), 7.26-7.32 (2H, aromatic, Fmoc H-2 and H-7), 7.37-7.40 (2H, aromatic, Fmoc H-3 and H-6), 7.51-7.60 (2H, aromatic, Fmoc H-1 and H-8), 7.74-7.77 (2H, aromatic, Fmoc H-4 and H-5); δ_C ($CDCl_3$ at 298K); 29.14/30.13 (d, C-5),

44.40/44.72 (d, C-5), 47.12/47.21 (u, Fmoc-CH), 61.02/61.87 (u, C-3), 61.63/62.07 (u, C-2), 66.17 (d, Fmoc-CH_2), 67.65 (d, $CH_2CH=CH_2$), 118.86/119.11 (d, $CH_2CH=CH_2$), 119.94/124.83/124.95/125.05/127.03/127.69 (u, aromatic, Fmoc-CH), 131.384/131.50 (u, $CH_2CH=CH_2$), 141.29 (q, aromatic Fmoc quaternary carbon b), 143.49/143.65/143.92 (q, aromatic Fmoc quaternary carbon a), 154.07/154.49 (q, Fmoc-CO), 168.62/168.70 (q, allyl-CO).

(4) Preparation of (2*S*,3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 1-(9H-fluoren-9-ylmethyl) ester.

Dichloromethane (30 ml) then phenyltrihydrosilane (0.81 ml, 6.6 mmol) were added consecutively to a stirred mixture of tetrakistriphenylphosphine palladium(0) (76 mg, 0.066 mmol) and (2*S*, 3*R*)-3-azidopyrrolidine-1,2-dicarboxylic acid allyl ester 1-(9*H*-fluoren-9-ylmethyl) ester (1.38 g, 3.3 mmol) under argon. The mixture was stirred for 30 minutes then diluted with chloroform (200 ml) and washed with 0.01M hydrochloric acid (200 ml). The aqueous layer was extracted with chloroform (100 ml), then the combined chloroform layers were dried (Na_2SO_4) and the solvent removed *in vacuo*. The brown residue was purified by flash chromatography over silica gel eluting with a gradient of heptane : ethyl acetate 3.5:1 → 0:1 followed by methanol : dichloromethane 1 : 4. Appropriate fractions were combined and the solvents removed *in vacuo* to leave (2*S*, 3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester as a brown foam (890 mg, 71%). TLC (main UV spot, Rf = 0.20, methanol : chloroform 1:9), analytical HPLC main UV peak with Rt = 16.528mins and HPLC-MS 379.2 $[M+H]^+$, 401.1 $[M+Na]^+$, 779.3 $[2M+Na]^+$.

(5) Preparation of (2*S*,3*R*) 3-aminopyrrolidine-1,2-dicarboxylic acid 1-(9H-fluoren-9-ylmethyl) ester.

Acetic acid was added to a suspension of (2*S*, 3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester (3.25 g, 8.6 mmol), palladium on carbon (10%, 320 mg) and ethanol (80 ml) under an atmosphere of argon. The mixture was then stirred under an atmosphere of hydrogen for 3.5 hours then the hydrogen was replaced with argon and the suspension stored at 0°C for 14 hours. A further portion of palladium on carbon (10%, 150 mg) was added then the mixture stirred at ambient temperature for 3 hours under an atmosphere of hydrogen. The catalyst was removed by filtration *in vacuo* through a pad of celite which was washed with acetic acid : water (1:1, 150 ml). The filtrate was concentrated *in vacuo* then toluene (50 ml) was added to the residue and solvents removed *in vacuo*. A further portion of toluene was added (50 ml) and the solvent removed *in vacuo* to leave an oily residue which was triturated with diethyl ether (125 ml) to obtain (2*S*, 3*R*) 3-aminopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester acetate as a pale brown solid (1.05 g, 30%). Analytical HPLC single UV peak with Rt = 12.541mins and HPLC-MS 353.2 $[M+H]^+$, 705.3 $[2M+Na]^+$.

(6) Preparation of (2*S*,3*R*) 3-*tert*-Butoxycarbonylamino-pyrrolidine-1,2-dicarboxylic acid 1-(9H-fluoren-9-ylmethyl) ester

A solution of di-*tert*-butyl dicarbonate (210 mg, 0.96 mmol) in 1,4-dioxan (10 ml) was added to a stirred suspension of (2*S*, 3*R*)-3-aminopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester (360 mg, 0.87 mmol) and sodium carbonate (195 mg, 1.84 mmol) in water (10 ml) and 1,4-dioxan (10 ml) over 1 hour at 0°C. The reaction mixture was stirred for 16 hours at ambient temperature then the majority of solvents were removed *in vacuo*. The residue was dissolved in dichloromethane (200 ml) and water (100 ml) then acidified to pH ~ 2.5 using 1M hydrochloric acid. The dichloromethane layer was separated then the aqueous layer extracted with dichloromethane. The combined dichloromethane layers were dried

(Na_2SO_4) and the solvent removed *in vacuo*. The orange-brown residue was purified by flash chromatography over silica gel eluting with a gradient of dichloromethane : methanol 19:1 → 9:1. Appropriate fractions were combined and the solvents removed *in vacuo* to leave (2*S*, 3*R*) 3-*tert*-butoxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester as a light brown solid (235 mg, 60%). TLC (single UV spot, Rf = 0.25, methanol : chloroform 1:9), analytical HPLC single UV peak with Rt = 17.476mins and HPLC-MS 397.2 $[M\text{-}Bu+2H]^+$, 475.2 $[M+Na]^+$, 927.4 $[2M+Na]^+$.

δ_H ($CDCl_3$ at 298K); 1.35 (2H, brs $\underline{Me}_3C$), 1.48 (1H, brs $\underline{Me}_3C$), 1.75-2.20 (2H, m, H-4), 2.75-3.85 (4H, m, H-5, H-3, Fmoc-C$\underline{H}$), 3.85-4.60 (4H, m, Fmoc-C$\underline{H}_2$, H-2 and NH), 6.20-6.75 (0.5H, brs, NH), 7.05-7.90 (8H, aromatic); δ_C (d_6-DMSO at 298K); 1.39 and 1.46 (9H total, each s, $\underline{Me}_3C$), 1.70-1.85 (1H, m, H-4), 1.70-1.85 (1H, m, H-4), 3.24-3.35 (1H, m, H-5), 3.44-3.54 (1H, m, H-5), 4.02-4.30 (5H, m, H-2, H-3, Fmoc-C$\underline{H}_2$ and Fmoc-C$\underline{H}$), 6.80 and 7.0 (1H total, each brs, N$\underline{H}$), 7.30-7.98 (8H, aromatic)

(7) Preparation of (2*S*,3*R*) 3-*tert*-Butoxycarbonylamino-2-(2-diazo-acetyl)-pyrrolidine-1-carboxylic acid 9H-fluoren-9-ylmethyl ester.

A solution of *iso*-butyl chloroformate (68 µl, 0.52 mmol) in dichloromethane (2 ml) and a solution of 4-methylmorpholine (105 µl, 0.95 mmol) in dichloromethane (2 ml) were simultaneously added in portions to a stirred suspension of (2*S*, 3*R*)-3-*tert*-butoxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-(9*H*-fluoren-9-ylmethyl) ester (215 mg, 0.48mmol) in dichloromethane (5 ml) at -15 °C over 20 minutes under an atmosphere of nitrogen. The solution was stirred for 2 hours then additional solutions of *iso*-butyl chloroformate (15 µl, 0.115 mmol) in dichloromethane (0.5 ml) and 4-methylmorpholine (26 µl,

0.237 mmol) in dichloromethane (0.5 ml) were simultaneously added in one portion. The mixture was stirred for 30 minutes at -15 °C then ethereal diazomethane [~15mmol generated from diazald (4.7 g mmol) addition in diethyl ether (75 ml) to sodium hydroxide (5.25 g) in water (7.5 ml)/ethanol (15 ml) at 65°C] was cautiously added and the resulting yellow solution stirred at room temperature for 16 hrs. Acetic acid (~1 ml) was cautiously added (until effervescence had ceased), then the mixture was diluted with diethyl ether (100 ml). The ethereal layer was washed with water (3 x 100 ml), dried (Na_2SO_4) and the solvents removed *in vacuo* to leave an oily residue (250 mg) which was purified by flash chromatography over silica gel eluting with a gradient of heptane : ethyl acetate 2:1 → 1:1. Appropriate fractions were combined and the solvents removed *in vacuo* to leave (2*S*, 3*R*) 3-*tert*-butoxycarbonylamino-2-(2-diazoacetyl)pyrrolidine-1-carboxylic acid 9*H*-fluoren-9-ylmethyl ester as a pale yellow solid (91 mg, 40%). TLC (single UV spot, Rf = 0.4, heptane : ethyl acetate 1:1), analytical HPLC main UV peak with Rt = 18.363mins and HPLC-MS 449.2 $[M-N_2+H]^+$, 499.2 $[M+Na]^+$, 975.5 $[2M+Na]^+$.

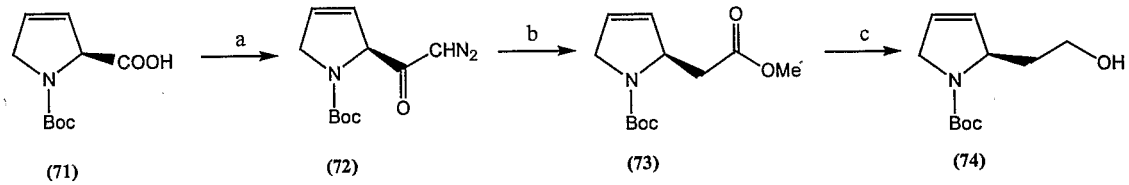
(8) Cyclisation to (3a*S*,6a*R*) 3-Oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(6)**

A solution of (2*S*, 3*R*) 3-*tert*-butoxycarbonylamino-2-(2-diazoacetyl) pyrrolidine-1-carboxylic acid 9*H*-fluoren-9-ylmethyl ester (100 mg, 0.21 mmol) in chloroform (2.5 ml) was added dropwise over 28 minutes to a stirred suspension of rhodium (II) acetate dimer (10 mg) in toluene (2.5 ml) at 75°C under an atmosphere of argon. The mixture was stirred for an additional 30 minutes at this temperature then the solvents removed *in vacuo* to leave an oily residue which was purified by flash chromatography over silica gel eluting with a gradient of hexane : ethyl acetate 3:1 → 1:1. Appropriate fractions were combined and the solvents removed *in vacuo* to leave (3a*S*, 6a*R*) 3-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9*H*-fluoren-9-

ylmethyl) ester as a white solid (28 mg, 30%). TLC (two UV spots, major and minor Rf = 0.30 and 0.35 respectively, hexane : ethyl acetate 7:3), analytical HPLC broad group of UV peaks with Rt = 20.043-21.472mins and HPLC-MS 449.2 $[M+H]^+$, 471.2 $[M+Na]^+$, 919.4 $[2M+Na]^+$.

δ_H ($CDCl_3$ at 298K); (Spectrum poorly resolved) 1.46 (9H, s, $\underline{Me}_3C$), 1.85-2.35 (2H, m, H-6), 3.2-5.0 (9H, m, 2 x H-2, H-3a, 2 x H-5, H-6a, Fmoc-$C\underline{H}_2$, Fmoc-C$\underline{H}$), 7.2-7.85 (8H, aromatic).

Alternatively, following the general details from Scheme 2, the required bicycle building block (3a*S*,6a*R*) 3-Oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9ylmethyl) ester **(6)** was prepared following Schemes 19 and 20;



(71) (72) (73) (74)

Scheme 19. (a) i.^{t}BuOCOCl, NMM, CH_2Cl_2, -15 °C; ii. Ethereal CH_2N_2, -15 °C to RT. (b) MeOH, THF, CF_3CO_2Ag, NMM, 0 °C to RT in dark. (c) DIBAL-H / THF or $LiBH_4$ / MeOH / THF

Preparation of (*S*)-2-(2-diazoacetyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (72)

2,5-Dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester **(71)** (1.066 g, 5 mmol) was dissolved with stirring in anhydrous dichloromethane (40 ml). The reaction was flushed with nitrogen and cooled to –15 °C. *iso*-Butylchloroformate (0.713 ml, 5.5 mmol) in anhydrous dichloromethane (5 ml) and 4-methylmorpholine (1.099 ml, 10 mmol) in anhydrous dichloromethane (5 ml) were added

simultaneously in 1 ml aliquots over 50 minutes. The mixture was stirred for 2.5 hours at –15 °C then ethereal diazomethane [~15 mmol generated from addition of diazald (4.7 g) in diethyl ether (75 ml) onto sodium hydroxide (5.25 g) in water (7.5 ml) / ethanol (15 ml) at 60 °C] was added to the activated amino acid solution. The mixture was allowed to warm to ambient temperature and stirred for 2.5 hours. A few drops of acetic acid were cautiously added to the mixture, followed by dichloromethane (40 ml). The ethereal layers were washed with aqueous saturated sodium hydrogen carbonate solution (2x 40 ml), dried (Na_2SO_4) and the solvents removed *in vacuo* to leave a yellow residue (1.4 g). Flash chromatography of the residue over silica (35 g) eluting with ethyl acetate : heptane 3 : 7 gave (*S*)-2-(2-diazoacetyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(72)** (1.024 g, 86%). TLC (Single spot, R_f = 0.47, EtOAc : heptane 1 : 1), analytical HPLC R_t = 11.537 min; HPLC-MS 497.2 $[2M + Na]^+$; d_H (500 MHz, $CDCl_3$) 1.41-1.51 (9H, m, $C(CH_3)_3$), 4.11-4.35 (2H, m, $BocNCH_2$), 4.86-5.05 (1H, m, BocNC*H*), 5.25-5.50 (1H, m, CHN_2), 5.70-5.80 (1H, m, olefinic C*H*) and 5.88-6.03 (1H, m, olefinic C*H*); d_C (125 MHz, $CDCl_3$) 28.3 and 28.4 ($C(\underline{C}H_3)_3$), 51.8 and 52.3 ($\underline{C}HN_2$), 53.65 and 54.0 ($BocN\underline{C}H_2$), 71.5 and 72.3 ($BocN\underline{C}H$), 80.6 and 80.9 ($O\underline{C}(CH_3)_3$), 126.1 and 126.3 (olefinic $\underline{C}H$), 128.35 and 128.5 (olefinic $\underline{C}H$), 153.7 and 154.15 ($N\underline{C}O_2$), 192.7 and 193.4 ($\underline{C}OCHN_2$).

Preparation of (*R*)-2-methoxycarbonylmethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (73)

(*S*)-2-(2-Diazoacetyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(72)** (912 mg, 3.85 mmol) was dissolved in tetrahydrofuran (14 ml) and methanol (1.6 ml) then cooled to 0 °C. A solution of silver trifluoroacetate (94 mg) in 4-methylmorpholine (1.06 ml) was added, and the mixture allowed to warm to ambient temperature over 6 hours in the dark. Methanol (40 ml) was added, followed by 10% aqueous citric acid solution (100 ml). The majority of the organic solvents were removed *in vacuo* then the aqueous phase extracted with ethyl acetate (3x 40 ml). The combined organic layers were washed with brine (40 ml), dried (Na_2SO_4) and evaporated *in vacuo* to afford a residue (1.35 g). Flash

chromatography of the residue over silica (200 g) eluting with ethyl acetate : hexane 3 : 17 afforded (*R*)-2-methoxycarbonylmethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(73)** as a colourless oil (670 mg, 72%). TLC (Single spot, R_f = 0.27, EtOAc : hexane 1 : 4), analytical HPLC R_t = 15.033 min; HPLC-MS 505.3 $[2M + Na]^+$; d_H (500 MHz, $CDCl_3$) 1.44-1.53 (9H, m, $C(CH_3)_3$), 2.37-2.55 (1H, m, CH_2CO_2Me), 2.90-4.00 (1H, m, CH_2CO_2Me), 3.63-3.70 (3H, m, OCH_3), 3.97-4.26 (2H, m, $BocNCH_2$), 4.70-4.90 (1H, m, BocNC*H*), 5.74-5.89 (2H, m, 2x olefinic C*H*); d_C (125 MHz, $CDCl_3$) 28.2, 28.3 and 28.5 ($C(\underline{C}H_3)_3$), 39.4 and 38.4 ($\underline{C}H_2CO_2Me$), 51.5 and 51.6 ($O\underline{C}H_3$), 53.3 and 53.5 ($BocN\underline{C}H_2$), 60.7 and 60.9 (BocN$\underline{C}$H), 79.6 and 80.0 ($O\underline{C}(CH_3)_3$), 126.0 and 126.1 (olefinic $\underline{C}$H), 129.3 and 129.5 (olefinic $\underline{C}$H), 153.9 ($N\underline{C}O_2$), 171.5 and 171.7 ($\underline{C}O_2Me$).

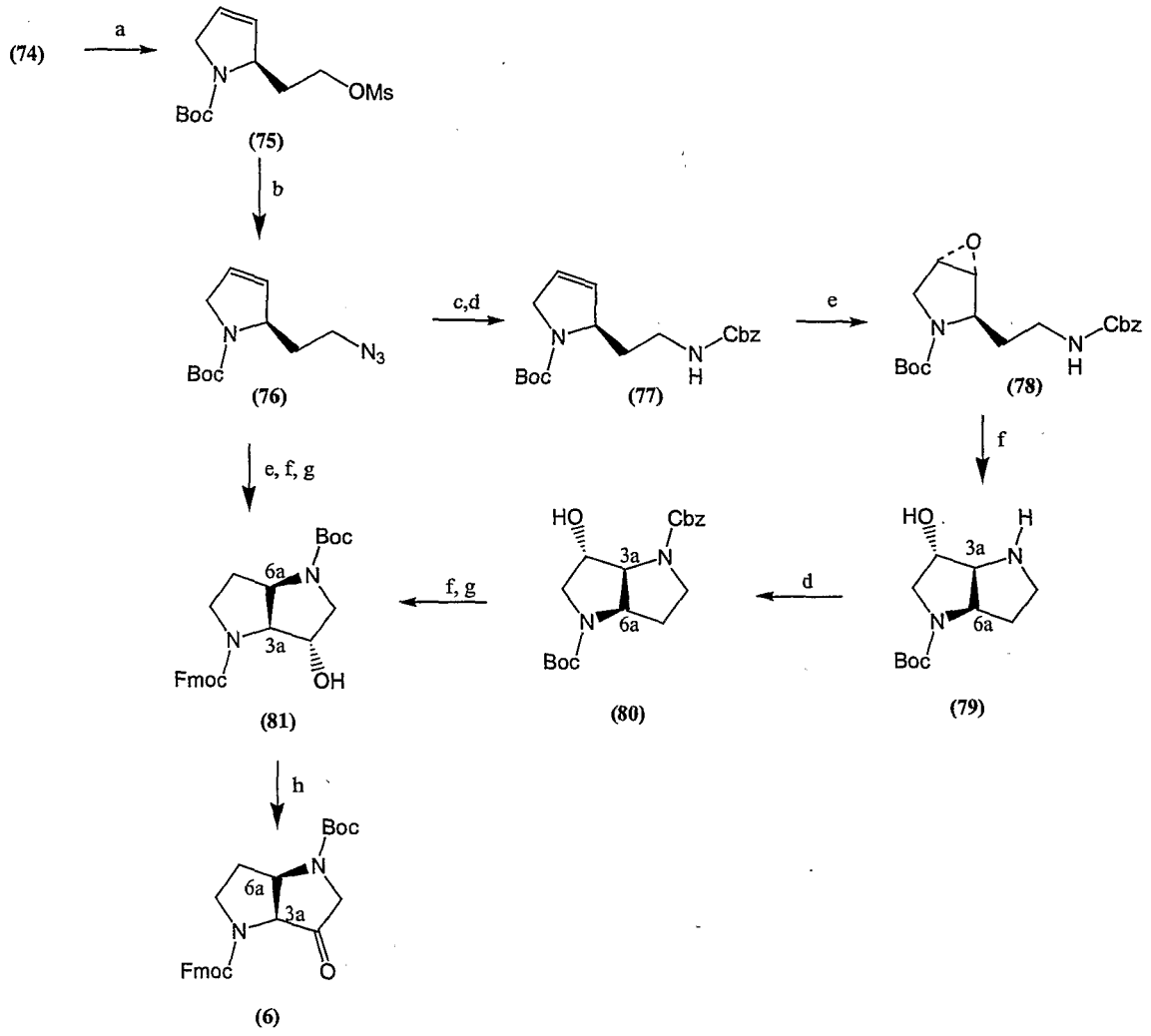
Preparation of (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (74)

Diisobutylaluminium hydride (1M solution in tetrahydrofuran, 13.6 ml, 13.6 mmol) was added dropwise over 20 minutes to a stirred solution of (*R*)-2-methoxycarbonylmethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(73)** (630 mg, 2.61 mmol) in tetrahydrofuran (20 ml) at –78 °C under a nitrogen atmosphere. The mixture was stirred for 2 hours at –78 °C then at ambient temperature for 18 hours. Methanol (11.94 ml) was slowly added to the mixture, followed by ethyl acetate (40 ml) and magnesium sulfate. The resultant slurry was vigorously stirred for 2 hours, then filtered and the solid residue washed with excess ethyl acetate. The filtrate was evaporated *in vacuo* to afford a residue (1.4 g). Flash chromatography of the residue over silica gel (150 g) eluting with ethyl acetate : hexane 7 : 13 gave (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(74)** (430 mg, 77%). TLC (Single spot, R_f = 0.37, EtOAc : hexane 1 : 1), analytical HPLC R_t = 12.161 min; HPLC-MS 236.1 $[M + Na]^+$, 449.3 $[2M + Na]^+$; $[a]_D^{22}$ –112° (c=1, $CHCl_3$); d_H (500 MHz, $CDCl_3$) 1.42-1.55 (10H, br. s, $C(CH_3)_3$ and $NCHCH_2$), 1.84-1.95 (1H, m, $NCHCH_2$), 3.60-3.72 (2H, m, CH_2OH), 3.93-4.28 (2H, m, $BocNCH_2$), 4.53-4.78 (1H, m, BocNC*H*), 5.67-5.84 (2H, m, 2x olefinic C*H*); d_C (125 MHz, $CDCl_3$) 28.4 ($C(\underline{C}H_3)_3$), 37.4

and 38.7 ($\underline{C}H_2CH_2OH$), 53.45 and 53.6 ($N\underline{C}H_2$), 59.2 and 59.6 ($O\underline{C}H_2$), 61.2 and 61.9 (BocN$\underline{C}$H), 79.9 and 80.1 ($O\underline{C}(CH_3)_3$), 124.4 and 125.3 (olefinic $\underline{C}$H), 130.3 and 131.1 (olefinic $\underline{C}$H), 154.4 and 156.0 ($N\underline{C}O_2$).

Alternative preparation of (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (74)

Methanol (0.27 ml, 6.7 mmol) was added dropwise to a stirred suspension of lithium borohydride (146 mg, 6.6 mmol) in tetrahydrofuran (3.5 ml) under an atmosphere of argon over 4 minutes, followed by a solution of (*R*)-2-methoxycarbonylmethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(73)** (0.8 g, 3.3 mmol) in tetrahydrofuran (8 ml) over 15 minutes. The mixture was stirred for 1 hour then poured into water (25 ml). The product was extracted into dichloromethane (3x 20 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 25 : 75 to give (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(74)** as a colourless oil (0.48 g, 67%), $[a]_D^{22}$ –127° (c=1, $CHCl_3$).



Scheme 20. (a) Methanesulfonyl chloride, triethylamine, DCM. (b) Sodium azide, DMF. (c) Ph_3P / H_2O, 1,4-dioxane. (d) 1.05 eq Cbz-Cl, 2.1eq Na_2CO_3, 1,4-dioxane, water. (e) *m*-Chloroperoxybenzoic acid, DCM. (f) Pd-C / H_2, ethanol. (g) 1.05 eq Fmoc-Cl, 2.1eq Na_2CO_3, 1,4-dioxane, water. (h) Dess-Martin periodinane, DCM.

Preparation of (*R*)-2-(2-methanesulfonylethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (75)

Triethylamine (2.35 ml, 16.9 mmol) was added dropwise to a stirred solution of (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(74)** (2.33 g, 10.9 mmol) in dichloromethane (20 ml) at 0 °C over 2 minutes followed

by methanesulfonyl chloride (1.27 ml, 16.4 mmol) over 4 minutes. The mixture was stirred for 1 hour at 0 °C then washed with water (170 ml) and brine (170 ml), dried (Na_2SO_4) and the solvents removed *in vacuo* to leave a residue (3.42 g), which was used without further purification (see below). HPLC-MS 236.0 [M + 2H– Bu]$^+$, 314.1 [M + Na]$^+$, 605.1 [2M + Na]$^+$.

Preparation of (*R*)-2-(2-azidoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (76)

Sodium azide (3.55 g, 54.7 mmol) was added to a stirred solution of (*R*)-2-(2-methanesulfonylethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(75)** (prepared as above) in dimethylformamide (45 ml) under an atmosphere of argon. The mixture was stirred at 60 °C for 1.5 hours then the majority of solvents were removed by distillation *in vacuo* and the residue partitioned between water (200 ml) and ethyl acetate (200 ml). The ethyl acetate layer was washed with brine (150 ml), dried (Na_2SO_4), and the solvents removed *in vacuo* to leave a residue (2.49 g) which was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0: 100 to 10 : 90 to give (*R*)-2-(2-azidoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(76)** as a colourless oil (2.05 g, 79%). TLC (Single spot, R_f = 0.45, EtOAc : hexane 3 : 7), analytical HPLC R_t = 15.910 min; HPLC-MS 139.1 [M + 2H - Boc]$^+$, 183.1 [M + 2H – Bu]$^+$, 499.2 [2M + Na]$^+$; d_H (500 MHz, $CDCl_3$) 1.40-1.50 (9H, m, C(CH_3)$_3$), 1.90-2.10 (2H, m, NCHCH_2), 3.17-3.33 (2H, m, CH_2N_3), 3.96-4.27 (2H, m, BocNCH_2), 4.53-4.68 (1H, m, BocNC*H*), 5.66-5.86 (2H, m, 2x olefinic C*H*); d_C (125 MHz, $CDCl_3$) 28.3 and 28.5 (C($\underline{C}H_3$)$_3$), 32.5 and 33.0 ($\underline{C}H_2CH_2N_3$), 47.5 and 47.9 ($\underline{C}H_2N_3$), 53.6 and 53.8 (BocN$\underline{C}H_2$), 62.0 and 62.3 (BocN$\underline{C}$H), 79.55 and 79.9 (O$\underline{C}$(CH$_3$)$_3$), 125.6 and 126.1 (olefinic $\underline{C}$H), 128.9 and 129.4 (olefinic $\underline{C}$H), 154.2 and 154.3 (N$\underline{C}$O$_2$), followed by (*R*)-2-(2-hydroxyethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (74) (22 mg, 9%).

Preparation of (*R*)-2-(2-benzyloxycarbonylaminoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (77)

Water (2.1 ml, 118 mmol) was added to a stirred solution of (*R*)-2-(2-azidoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(76)** (2.8 g, 11.8 mmol) and triphenylphosphine (4.6 g, 17.5 mmol) in tetrahydrofuran (350 ml) under an atmosphere of argon. The solution was heated at 45 °C for 7.5 hours then at ambient temperature for 14 hours. An aliquot (18.5 ml, ~0.63 mmol) was removed, concentrated *in vacuo* then azeotroped with toluene (3x 10 ml) and used for the preparation of (2*R*)-2-[2-((2*S*)-2-benzyloxycarbonylamino-4-methylpentanoylamino) ethyl]-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(140)** (see Scheme 28). An additional 5.0 ml aliquot was removed for analysis, then the remainder of the solution was concentrated *in vacuo* to obtain an oily residue. The residue was dissolved in 1,4-dioxane (35 ml) with stirring, ice-cooled and a solution of sodium carbonate (2.45 g, 23.1 mmol) in water (35 ml) was added. Benzyl chloroformate (2.18 g, 1.824 ml, 12.8 mmol) in 1,4-dioxane (10 ml) was then added dropwise over 30 minutes and the mixture stirred for an additional 30 minutes before adding water (250 ml). The aqueous phase was extracted with dichloromethane (2x 250 ml) and the combined organic layers were dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear mobile oil (10.2 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (*R*)-2-(2-benzyloxycarbonylaminoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(77)** (3.58 g, 94%) as a mobile colourless oil. TLC (R_f = 0.32, EtOAc : heptane 1 : 1), analytical HPLC single main peak, R_t = 17.39 min., HPLC-MS 247.1 $[M + 2H - Boc]^+$, 291.1 $[M + 2H - Bu]^+$, 347.1 $[M + H]^+$, 369.1 $[M + Na]^+$, 715.2 $[2M + Na]^+$; Elemental analysis $C_{19}H_{26}N_2O_4$ req.(fnd.) % C 65.87 (65.79), % H 7.56 (7.53), % N 8.09 (7.97); HRMS $C_{19}H_{26}N_2O_4Na$ req. 369.1790, fnd. 369.1803 (3.37ppm); δ_H (500 MHz, $CDCl_3$) 1.45 (9H, br. s, $C(CH_3)_3$), 1.60-1.95 (2H, m, BocNCHCH_2), 3.00-3.44 (2H, m, CH_2NH), 3.90-4.29 (2H, m, BocNCH_2), 4.45-4.81 (1H, m, BocNC*H*), 5.01-5.16 (2H, m, OCH_2Ph), 5.50-5.83 (2H, m, 2x olefinic C*H*) and 7.25-7.38 (6H, m, C_6H_5 and N*H*); δ_C (125 MHz, $CDCl_3$) 28.4 ($C(\underline{C}H_3)_3$), 34.4, 34.6 ($\underline{C}H_2CH_2NH$), 37.2, 37.6 ($\underline{C}H_2NH$), 53.6, 53.7 (BocN$\underline{C}H_2$), 61.7, 62.1 (BocN$\underline{C}$H), 66.4, 66.6 (O$\underline{C}H_2$Ph), 79.6, 79.9 ($O\underline{C}(CH_3)_3$), 125.2, 125.9, 127.0, 127.6, 127.9, 128.0, 128.4, 129.5,

130.2 (5x aromatic CH and 2x olefinic CH), 154.3, 155.0, 156.2, 156.5 ($NHCO_2$ and NCO_2).

Preparation of (2*R*)-2-(2-benzyloxycarbonylaminoethyl)-6-oxa-3-aza-bicyclo [3.1.0]hexane-3-carboxylic acid *tert*-butyl ester (78)

(*R*)-2-(2-Benzyloxycarbonylaminoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(77)** (3.57 g, 10.3 mmol) was dissolved in anhydrous dichloromethane (60 ml) with stirring and *meta*-chloroperoxybenzoic acid (27.3 g, 65% reagent, 103 mmol) added. The mixture was stirred at ambient temperature under argon for 16 hours. Dichloromethane (400 ml) was added and the organic phase washed with 10% aqueous w/v solution of sodium hydroxide (2x 400 ml), then dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear oil (~5 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (2*R*)-2-(2-benzyloxycarbonyl aminoethyl)-6-oxa-3-aza-bicyclo [3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(78)** (3.57 g, 95.3%) as a mobile colourless oil. TLC (R_f = 0.36 (minor) and 0.40 (major) (mixture of *anti* and *syn* epoxides), EtOAc : heptane 2 : 1), analytical HPLC single main peak, R_t = 17.74 min., HPLC-MS 263.1 $[M + 2H - Boc]^+$, 307.1 $[M + 2H - Bu]^+$, 363.1 $[M + H]^+$, 385.1 $[M + Na]^+$, 747.2 $[2M + Na]^+$; Elemental analysis $C_{19}H_{26}N_2O_5$ req.(fnd.) % C 62.97 (62.93), % H 7.23 (7.22), % N 7.73 (7.61); HRMS $C_{19}H_{26}N_2O_5Na$ req. 385.1739, fnd. 385.1725 (-3.82ppm); d_H (500 MHz, $CDCl_3$) 1.32-1.62 (10H, m, $C(CH_3)_3$ and CH_2CH_2NH), 1.67-2.00 (1H, m, CH_2CH_2NH), 2.90-4.21 (7H, m, CH_2NH, BocNC*H*C*H*, BocNCH_2C*H*), 4.70-5.17 (2H, m, OCH_2Ph), 5.78-6.05 (1H, m, N*H*) and 7.27-7.37 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 28.1, 28.3, 28.35 and 28.4 ($C(CH_3)_3$), 30.8 and 31.2 (CH_2CH_2NH), 37.4 and 37.7 (CH_2NH), 46.15 and 46.6 ($BocNCH_2$), 53.9, 54.2, 54.9 and 55.8 (2x epoxide CH), 58.1 and 58.2 (BocNCH), 66.5 and 66.7 (OCH_2Ph), 80.3 and 80.7 ($OC(CH_3)_3$), 128.0, 128.1, 128.2, 128.4, 128.5 (5x aromatic CH), 136.7 (OCH_2C), 155.1, 155.9, 156.3 and 156.6 ($NHCO_2$ and NCO_2).

Preparation of (3S, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester (79)

(2*R*)-2-(2-Benzyloxycarbonylaminoethyl)-6-oxa-3-aza-bicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(78)** (3.57 g, 9.86 mmol) was dissolved in ethanol (60 ml), cooled to 0 °C and 10% palladium on charcoal (0.40 g) added. The mixture was stirred, then evacuated and flushed with hydrogen. The mixture was allowed to warm to ambient temperature and after 2.5 hours filtered through celite. The filter cake was washed with ethanol (3x 60 ml) and the combined organic filtrates reduced *in vacuo* to provide crude (3S, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester **(79)** (~ 2.4 g). HPLC-MS 173.1 $[M + 2H - Bu]^+$, 229.1 $[M + H]^+$.

Preparation of (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 4-benzyl ester 1-*tert*-butyl ester (80)

Crude (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester **(79)** (~2.4 g) was dissolved in 1,4-dioxane (30 ml) with stirring, ice-cooled and a solution of sodium carbonate (2.19 g, 20.7 mmol) in water (25 ml) was added. Benzyl chloroformate (1.63ml, 11.4 mmol) in 1,4-dioxane (15 ml) was then added dropwise over 30 minutes and the mixture stirred for a further 30 minutes. The mixture was then reduced *in vacuo* by approximately 2/3 volume to leave a mobile pulp. Water (200 ml) was added and the aqueous phase extracted with dichloromethane (2x 100 ml). The combined organic layers were dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear mobile oil (3.96 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 4-benzyl ester 1-*tert*-butyl ester **(80)** (2.16 g, 60.5%) as an opaque gum. TLC (R_f = 0.15, EtOAc : heptane 1 : 1), analytical HPLC single main peak, R_t = 17.15 min., HPLC-MS 263.1 $[M + 2H - Boc]^+$, 307.1 $[M + 2H - Bu]^+$, 363.1 $[M + H]^+$, 385.1 $[M + Na]^+$, 747.2 $[2M + Na]^+$; Elemental analysis $C_{19}H_{26}N_2O_5$ req.(fnd.) % C 62.97 (62.82), % H 7.23 (7.39), % N 7.73 (7.57); HRMS $C_{19}H_{26}N_2O_5Na$ req.

385.1739, fnd. 385.1725 (2.15ppm); δ_H (400 MHz, CD_3CN, T = 75 °C) 1.46 (9H, s, $C(CH_3)_3$), 1.90-2.00 (1H, m obscured by NMR solvent peaks, $BocNCHCH_2$), 2.14 (1H, dd, J = 6.15, 13.15 Hz, $BocNCHCH_2$), 3.07-3.20 (2H, m, OH + $CbzNCH_2$), 3.24 (1H, dd, J = 3.8, 12.2 Hz, $BocNCH_2$), 3.51 (1H, d, J = 12.2 Hz, $BocNCH_2$), 3.68 (1H, ddd, J = 1.7, 8.6, 10.9 Hz, $CbzNCH_2$), 4.10 (1H, br. d, J = 5.8 Hz, $CbzNCH$), 4.27 (1H, br. s, $CHOH$), 4.40-4.46 (1H, m, $BocNCH$), 5.12 (1H, d, J = 12.7 Hz, OCH_2Ph), 5.16 (1H, d, J = 12.7 Hz, OCH_2Ph) and 7.42-7.29 (5H, aromatics); δ_C (120 MHz, $CDCl_3$) 28.5 ($C(\underline{C}H_3)_3$), 29.7, 30.4, 31.2, 31.9, 32.0 ($BocNCH\underline{C}H_2$), 45.5, 45.7 ($CbzN\underline{C}H_2$), 53.1, 53.4, 53.5 ($BocN\underline{C}H_2$), 60.1, 61.2 ($BocN\underline{C}H$), 67.2, 67.6, 68.2, 68.4, 69.0 ($O\underline{C}H_2Ph$ + Cbz-$N\underline{C}H$), 72.7, 73.3, 73.4 ($\underline{C}HOH$), 79.9, 80.1 ($O\underline{C}(CH_3)_3$), 127.9, 128.0, 128.2, 128.3, 128.5, 128.6, 136.3, 136.4 (aromatics), 154.1, 154.2, 155.2 (2x $N\underline{C}O_2$).

Preparation of (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester (81)

(3*S*, 3a*S*, 6a*R*)-3-Hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 4-benzyl ester 1-*tert*-butyl ester **(80)** (0.54 g, 1.5 mmol) was dissolved in ethanol (10 ml), cooled to 0 °C and 10% palladium on charcoal (0.055 g) added. The mixture was stirred, then evacuated and flushed with hydrogen. The mixture was warmed to ambient temperature and after 2.5 hours filtered through celite. The filter cake was washed with ethanol (3x 10 ml) and the combined filtrates reduced *in vacuo* to provide the crude amine (~ 0.36 g). HPLC-MS 173.1 $[M + 2H - Bu]^+$, 229.1 $[M + H]^+$. The crude amine was dissolved in 1,4-dioxane (15 ml) with stirring, ice-cooled and a solution of sodium carbonate (0.33 g, 3.15 mmol) in water (15 ml) was added. 9-Fluorenylmethyl chloroformate (0.463 g, 1.79 mmol) in 1,4-dioxane (10 ml) was added dropwise over 30 minutes and the mixture stirred for a further 30 minutes. Water (200 ml) was then added and the aqueous phase extracted with ethyl acetate (2x 100 ml). The combined organic layers were dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear mobile oil (1.02 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3*S*, 3a*S*, 6a*R*)-3-hydroxy hexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic

acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(81)** (0.64 g, 95%) as a fine white crystalline solid. TLC (R_f = 0.33, EtOAc : heptane 2 : 1), analytical HPLC single main peak, R_t = 19.98 min., HPLC-MS 395.1 $[M + 2H - Bu]^+$, 451.1 $[M + H]^+$, 473.1 $[M + Na]^+$, 923.2 $[2M + Na]^+$; Elemental analysis $C_{26}H_{30}N_2O_5$ req.(fnd.) % C 69.31 (69.11), % H 6.71 (7.06), % N 6.22 (5.84); HRMS $C_{26}H_{30}N_2O_5Na$ req. 473.2052, fnd. 473.2053 (0.06ppm); δ_H (400 MHz, CD_3CN, T = 75 °C) 1.46 (9H, s, $C(CH_3)_3$), 1.75-1.90 (1H, m, BocNCHCH_2), 2.05-2.13 (1H, m, BocNCHCH_2), 3.02 (1H, m, FmocNCH_2), 3.08-3.20 (1H, m, BocNCH_2), 3.46 (1H, m, BocNCH_2), 3.46-3.60 (1H, m, FmocNCH_2), 3.90-4.15 (2H, m, FmocNC*H* and C*H*OH), 4.28 (1H, t, J = 6.1 Hz, FmocC*H*), 4.34-4.40 (1H, m, BocNC*H*), 4.49 (2H, d, J = 6.1 Hz, FmocCH_2), 7.31-7.45 (4H, m, Fmoc aromatics), 7.65 (2H, d, J = 7.3 Hz, Fmoc aromatics), 7.83 (2H, d, J = 7.5 Hz, Fmoc aromatics); δ_C (100 MHz, $CDCl_3$) 28.45 ($C(\underline{C}H_3)_3$), 30.2, 31.2, 32.0 (BocNCH$\underline{C}H_2$), 44.8, 45.3, 45.6 (FmocN$\underline{C}H_2$), 47.3, 47.4 (Fmoc$\underline{C}$H), 52.8, 53.1, 53.4, 53.5 (BocN$\underline{C}H_2$), 60.1, 60.8 (BocN$\underline{C}$H), 65.9, 66.2, 67.3 (Fmoc$\underline{C}H_2$), 67.85, 68.4, 68.9 (FmocN$\underline{C}$H), 72.5, 72.9, 73.3, 73.6 ($\underline{C}$HOH), 79.95 ($O\underline{C}(CH_3)_3$), 119.8, 120.0, 124.6, 124.9, 125.0, 127.0, 127.4, 127.8 (Fmoc $\underline{C}$H aromatics), 141.3, 141.5, 143.7, 143.8, 144.1 (Fmoc quaternary aromatics), 154.0, 154.3, 155.0, 155.2 (2x $N\underline{C}O_2$).

Alternative preparation of (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester (81)

meta-Chloroperoxybenzoic acid (864 mg, 57-86%) was added to a solution of (*R*)-2-(2-azidoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(76)** (175 mg, 0.735 mmol) in anhydrous dichloromethane (4 ml). The mixture was stirred at ambient temperature for 7 hours then saturated aqueous sodium hydrogen carbonate solution (40 ml) and dichloromethane (60 ml) were added. The phases were mixed and separated and the organic phase washed with 10% aqueous sodium hydroxide solution (40 ml), dried (Na_2SO_4) and evaporated *in vacuo* to afford a residue (185 mg). The residue was dissolved in ethanol (6.8 ml) and cooled to 0 °C. 10% Palladium on carbon (84 mg) was added to the mixture and

the atmosphere purged with hydrogen gas. The mixture was stirred overnight under a hydrogen atmosphere at ambient temperature, filtered over celite and the filter cake washed with excess ethyl acetate. The filtrate was concentrated *in vacuo*, and the residue suspended in a solution of sodium carbonate (193 mg, 1.82 mmol) in water (4 ml). 1,4-Dioxane (2 ml) was added and the mixture cooled to 0 °C, then a solution of 9-fluorenylmethyl chloroformate (198 mg, 0.77 mmol) in 1,4-dioxane (2 ml) added in small portions over 40 minutes. The mixture was then allowed to warm to ambient temperature over 40 minutes. Water (40 ml) was added and the product extracted into dichloromethane (3x 40 ml). The combined organic layers were dried (Na_2SO_4) and evaporated *in vacuo* to afford a residue (335 mg). Flash chromatography of the residue over silica gel (35 g) eluting with ethyl acetate : heptane mixtures 1 : 4 followed by 1 : 1 gave (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(81)** (90 mg, 27%). TLC (Single spot, R_f = 0.24, EtOAc : heptane 1 : 1), analytical HPLC R_t = 16.348 min; HPLC-MS 451.2 $[M + H]^+$, 473.2 $[M + Na]^+$, 923.4 $[2M + Na]^+$; d_H (500 MHz, $CDCl_3$) 1.36-1.49 (9H, s, $C(CH_3)_3$), 1.65-2.25 (3H, m, BocNCHCH_2 and O*H*), 2.85-3.68 (5H, m, FmocNCH_2, BocNCH_2 and FmocNC*H*), 4.05-4.80 (5H, m, OCH_2CH, OCH_2, C*H*OH and BocNC*H*), 7.26-7.45 (4H, m, Fmoc aromatic C*H*), 7.53-7.64 (2H, m, Fmoc aromatic C*H*) and 7.73-7.80 (2H, m, Fmoc aromatic C*H*);

Preparation of (3a*S*, 6a*R*)-3-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester (6)

(3*S*, 3a*S*, 6a*R*)-3-Hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(81)** (0.495 g, 1.10 mmol) was dissolved in anhydrous dichloromethane (18 ml) with stirring under argon. Dess-Martin periodinane (0.962 g, 2.27 mmol) was added and the mixture stirred for 4 hours. The mixture was concentrated *in vacuo* and the residue purified by flash chromatography over silica, eluting with ethyl acetate : heptane mixtures to give (3a*S*, 6a*R*)-3-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(6)** (0.480 g, 97%) as a white

crystalline solid. TLC (R_f = 0.38, EtOAc : heptane 1 : 1), analytical HPLC single broad main peak, R_t = 20.27-21.79 min., HPLC-MS 393.1 $[M + 2H - Bu]^+$, 449.1 $[M + H]^+$, 471.1 $[M + Na]^+$, 919.2 $[2M + Na]^+$; Elemental analysis $C_{26}H_{28}N_2O_5$.0.25EtOAc req.(fnd.) % C 68.96 (68.88), % H 6.43 (6.61), % N 5.95 (5.95); HRMS $C_{26}H_{28}N_2O_5Na$ req. 471.1896, fnd. 471.1903 (1.44ppm); δ_C (125 MHz, $CDCl_3$) 28.36 ($C(\underline{C}H_3)_3$), 30.50, 30.93, 31.20 (BocNCH$\underline{C}H_2$), 45.68 (FmocN$\underline{C}H_2$), 47.20 (Fmoc$\underline{C}$H), 51.71, 52.22 (BocN$\underline{C}H_2$), 57.58, 58.64 (BocN$\underline{C}$H), 63.03, 63.57 (FmocN$\underline{C}$H), 67.70, 68.06 (Fmoc$\underline{C}H_2$), 81.10 ($O\underline{C}(CH_3)_3$), 119.94, 124.99, 125.15, 125.29, 127.05, 127.55, 127.71, 127.85 (Fmoc $\underline{C}$H aromatics), 143.69, 143.92, 144.23 (Fmoc quaternary aromatics), 153.99, 154.74, 155.04 (2x N$\underline{C}O_2$), 206.33, 206.59 ($\underline{C}$=O).

Following the general details from Scheme 6, the required bicycle building block (3a*S*,6a*R*) 3-Oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9H-fluoren-9-ylmethyl) ester **(6)** was converted to building block-linker construct **(27)** as follows:

A solution of sodium acetate trihydrate (42 mg, 0.311 mmol) in water (0.5 ml) was added to a solution of (3a*S*, 6a*R*) 3-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl ester 4-(9*H*-fluoren-9-ylmethyl) ester (18.6 mg, 0.0415 mmol) and 4-[[(hydrazinocarbonyl)amino]methyl]cyclohexane carboxylic acid. trifluoroacetate (Murphy, A. M., *et al*, J. Am. Chem. Soc, 114, 3156-3157, **1992**) (68 mg, 0.208 mmol) in ethanol (2.0 ml). Remaining traces of sodium acetate were rinsed into the mixture using a further aliquot of ethanol (1.5 ml) then the reaction heated at 75 °C in a sealed tube for 1 hour. The mixture was stood at ambient temperature for 14 hours then heated at 75°C for 2.5 hours. The product was extracted into chloroform (60 ml) then washed with hydrochloric acid (0.1M, 2 x 30 ml), saturated aqueous sodium chloride solution (30 ml) then dried (Na_2SO_4) and the solvent removed *in vacuo* to leave the product as a pale yellow oil (22.9 mg, 86%). Analytical HPLC has main UV peaks with Rt = 19.706 and 21.287mins and HPLC-MS (main UV peaks each with 646.3 $[M+H]^+$).

Following the general details from Scheme 6, the required building block-linker construct **(27)** was attached to the solid phase providing loaded building block-linker construct **(28)** as follows:

Building block-linker construct **(27)** (35.5μmoles mmoles), 2-(1H-benzotriazole-1-yl)-1,1,3,3-tetramethyluroniumhexafluoro phosphate (HBTU, 13.5mg, 35.5μmoles mmoles), 1-hydroxybenzotriazole.hydrate and (HOBT, 5.5mg, 35.5μmoles mmoles) were dissolved in dimethylformamide (1.5mL) and N-methylmorpholine (NMM, 7.8μL, 71μmoles mmoles) added. After pre-activation for 5 minutes, free amine gears (10 x 1.3μmole) were added and left overnight. The spent coupling solution was then added to free amine gears (6 x 1.3μmole) and left overnight. Standard washing and analyses indicated quantitative loading.

Following the general details from Scheme 6, the required loaded building block-linker construct **(28)** was elaborated on the solid phase as follows:

Loaded construct **(28)** was elaborated to EXAMPLE 1 (3*aR*, 6*aS*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butylbenzamide by standard Fmoc deprotection and sequential rounds of coupling and washing with the appropriate reagents as follows:-

(i) Fmoc-Leu-OH (2 x 20eq, overnight and 4 hr), HBTU, HOBT, NMM activation in DMF

(ii) Standard Fmoc deprotection

(iii) 4-*tert*-butylbenzoic acid (1 x 10eq, overnight), HBTU, HOBT, NMM activation in DMF

(iv) Treatment with 35%TFA in dichloromethane for 30mins, followed by washing with 2 x DMF, 1 x 2%NMM in DMF, 4 x DMF, 4 x acetonitrile.

(v) Benzoic anhydride (20eq) and NMM (5eq) in DMF for 20hr.

The crude example was cleaved and analysed (see general techniques). HPLC Rt = 18.879-19.62mins (>90%), HPLC-MS 504.3 $[M + H]^+$, 1029.5 $[2M + Na]^+$.

The solid phase experimental detailed for EXAMPLE 1 may be followed to couple with a vast range of aminoacids, carboxylic acids, sulphonyl chlorides etc to provide a vast range of analogues of general formula I.

In certain combinations of groupings, the order of solid phase events is amended. For example, when preparing EXAMPLE 194, the U substituent contains an amine group that requires protection via the Boc group, thus the following order of events is utilised :-

(vi) Fmoc-Leu-OH (2 x 20eq, overnight and 4 hr), HBTU, HOBT, NMM activation in DMF

(vii) Treatment with 35%TFA in dichloromethane for 30mins, followed by washing with 2 x DMF, 1 x 2%NMM in DMF, 4 x DMF, 4 x acetonitrile.

(viii) Benzoic anhydride (20eq) and NMM (5eq) in DMF for 20hr.

(ix) Standard Fmoc deprotection

(x) 4-(4-Carboxyphenyl)-piperazine-1-carboxylic acid *tert*-butyl ester sodium salt (1 x 10eq, overnight), HBTU, HOBT, NMM activation in DMF.

(xi) Standard cleavage

As a further variation, when preparing EXAMPLE 151, the following order of events is utilised :-

(xii) Fmoc-Leu-OH (2 x 20eq, overnight and 4 hr), HBTU, HOBT, NMM activation in DMF

(xiii) Standard Fmoc deprotection

(xiv) 4-Dimethylaminobenzoic acid (1 x 10eq, overnight), HBTU, HOBT, NMM activation in DMF

(xv) Washing with 1 x DMF, 1 x 20% piperidine in DMF, 4 x DMF, 4 x acetonitrile.

(xvi) Treatment with 35%TFA in dichloromethane for 30mins, followed by washing with 2 x DMF, 1 x 2%NMM in DMF, 4 x DMF, 4 x acetonitrile.

(xvii) Fmoc-Leu-OH (20eq, overnight), HBTU, HOBT, NMM activation in DMF.

(xviii) Standard Fmoc deprotection

(xix) Acetic anhydride (50eq) and NMM (25eq) in DMF for 1hr.

(xx) Washing with 1 x DMF, 1 x 20% piperidine in DMF, 4 x DMF, 4 x acetonitrile.

(xxi) Standard cleavage

As a further variation, when preparing EXAMPLE 80, the following order of events is utilised :-

(xxii) Fmoc-Leu-OH (2 x 20eq, overnight and 4 hr), HBTU, HOBT, NMM activation in DMF

(xxiii) Treatment with 35%TFA in dichloromethane for 30mins, followed by washing with 2 x DMF, 1 x 2%NMM in DMF, 4 x DMF, 4 x acetonitrile.

(xxiv) Pyridine-2-carboxylic acid (20eq) and NMM (5eq) in DMF for 20hr.

(xxv) Washing with 2 x DMF, 1 x 2%NMM in DMF, 4 x DMF, 4 x acetonitrile.

(xxvi) Oxidation with m-chloroperbenzoic acid (5eq) in DCM for 8hrs.

(xxvii) Washing with 4 x DMF, 4 x acetonitrile.

(xxviii) Standard Fmoc deprotection

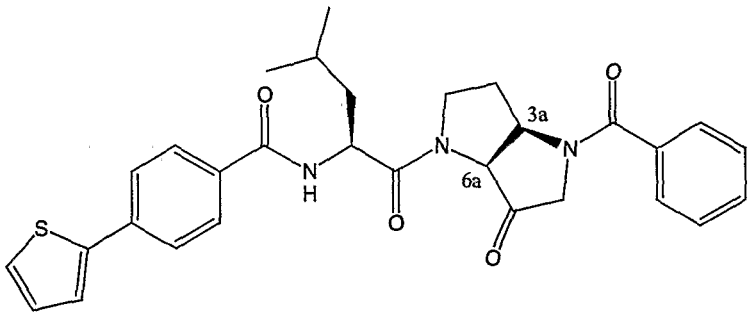
(xxix) 4-Dimethylaminobenzoic acid (1 x 10eq, overnight), HBTU, HOBT, NMM activation in DMF.

(xxx) Washing with 1 x DMF, 1 x 20% piperidine in DMF, 4 x DMF, 4 x acetonitrile.

(xxxi) Standard cleavage

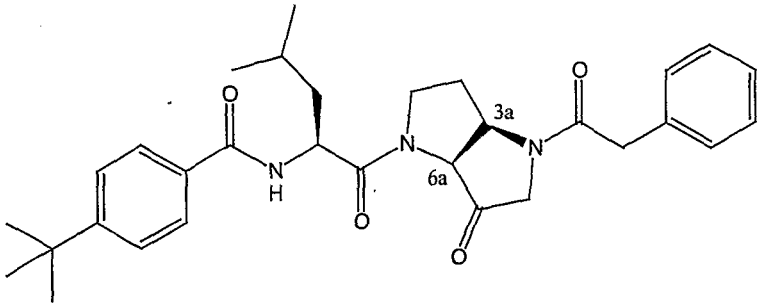
The following examples **(2 – 248)** were prepared as detailed for EXAMPLE 1, coupling with the required reagents to provide the full length molecule (see i → v, or vi → xi, or xii → xxi above, or xxii → xxxi above). For step (v), (viii) and (xix) where the anhydride is not readily available, an R^2COOH (20eq) / HBTU (20eq) / HOBT (20eq) / NMM (40eq) mixture in DMF with overnight coupling may be used or an RNHCOCl (20eq) / NMM (10eq) mixture in DMF with overnight coupling may be used or an RNCO (20eq) mixture in DMF with overnight coupling may be used. Following final coupling where the R^2 or U groups contain a protonatable nitrogen (e.g. pyridyl or 4-dimethylaminobenzoyl), the solid phase intermediate is treated with 20% piperidine in DMF for 10mins followed by standard washing protocols prior to cleavage.

EXAMPLE 2. (3*aR*, 6*aS*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide



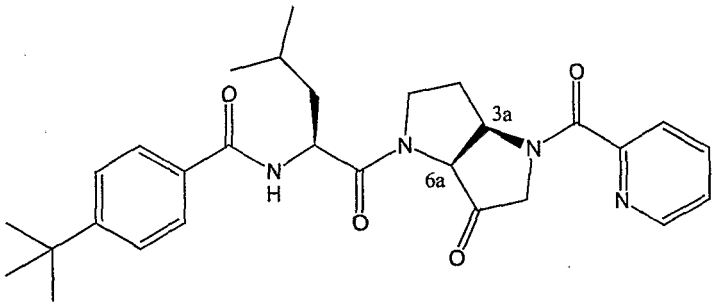
HPLC Rt = 18.0-19.2 mins (> 90%), HPLC-MS 530.2 $[M + H]^+$, 1081.4 $[2M + Na]^+$.

EXAMPLE 3. (3*aR*, 6*aS*)-4-*tert*-Butyl-*N*-[(1*S*)-3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide



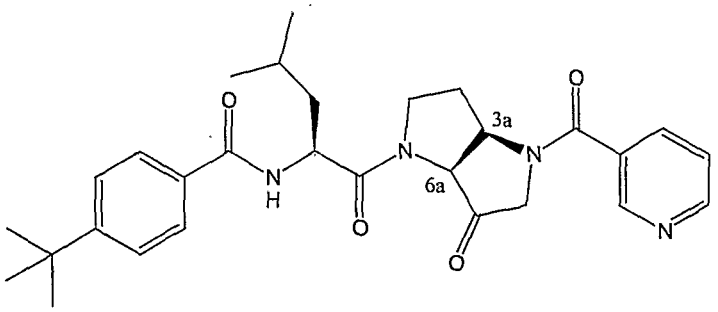
HPLC Rt = 19.1-20.2 mins (> 90%), HPLC-MS 518.3 $[M + H]^+$, 1057.6 $[2M + Na]^+$.

EXAMPLE 4. (3*aR*, 6*aS*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



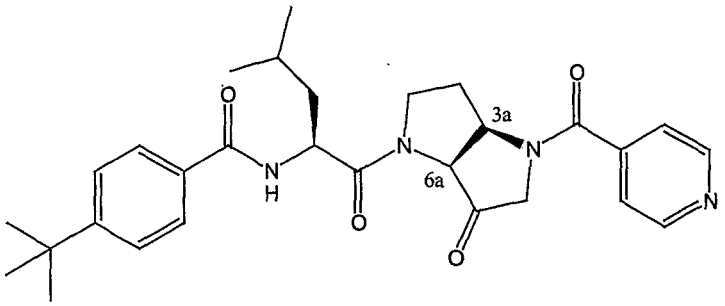
HPLC Rt = 17.2-18.1 mins (> 90%), HPLC-MS 505.3 $[M + H]^+$, 1031.5 $[2M + Na]^+$.

EXAMPLE 5. (3*aR*, 6*aS*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



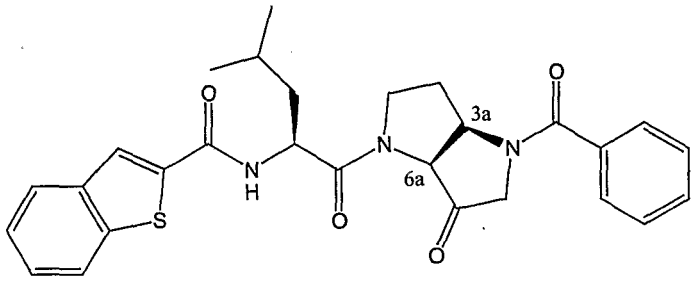
HPLC Rt = 15.2-16.4 mins (> 90%), HPLC-MS 505.3 $[M + H]^+$, 1031.5 $[2M + Na]^+$.

EXAMPLE 6. (3*aR*, 6*aS*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



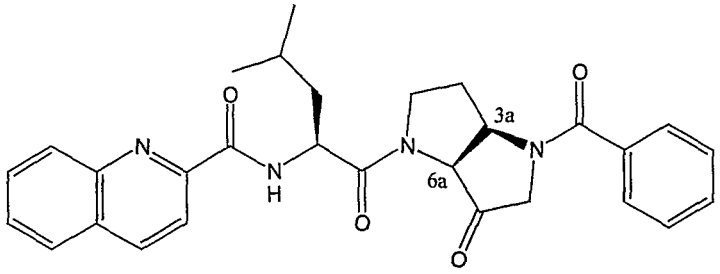
HPLC Rt = 15.3-16.4 mins (> 90%), HPLC-MS 505.3 $[M + H]^+$, 523.3 $[M + H + H_2O]^+$.

EXAMPLE 7. (3*aR*, 6*aS*)-Benzo[*b*]thiophene-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



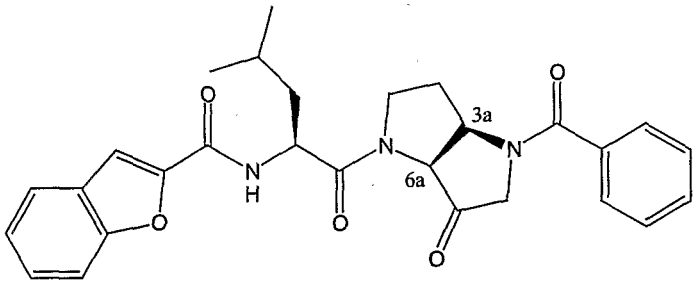
HPLC Rt = 16.8-17.9 mins (> 90%), HPLC-MS 504.2 $[M + H]^+$.

EXAMPLE 8. (3a*R*, 6a*S*)-Quinoline-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



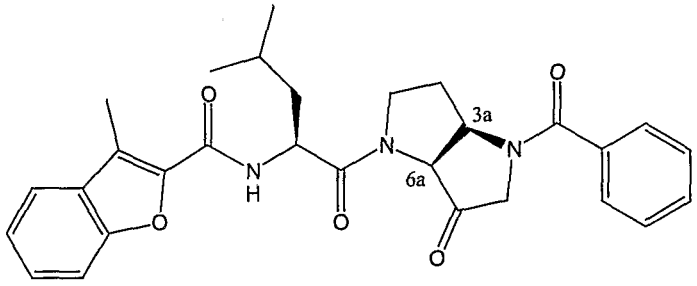
HPLC Rt = 17.0-17.8 mins (> 90%), HPLC-MS 499.1 $[M + H]^+$.

EXAMPLE 9. (3a*R*, 6a*S*)-Benzofuran-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



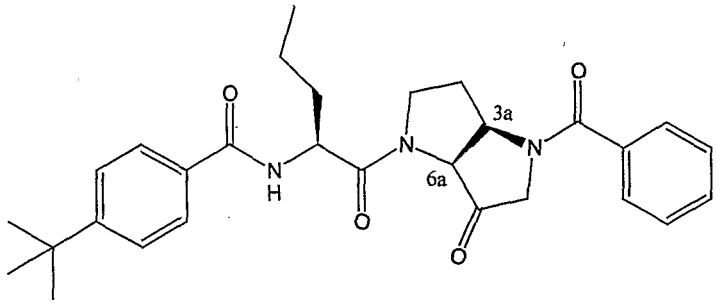
HPLC Rt = 16.2-17.7 mins (> 90%), HPLC-MS 488.1 $[M + H]^+$, 997.2 $[2M + Na]^+$.

EXAMPLE 10. (3a*R*, 6a*S*)-3-Methyl-benzofuran-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



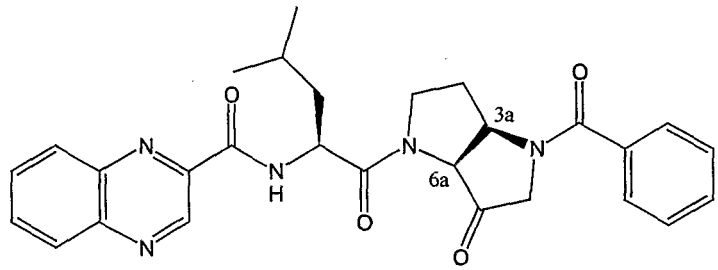
HPLC Rt = 17.8-18.9 mins (> 85%), HPLC-MS 502.1 $[M + H]^+$, 520.1 $[M + H + H_2O]^+$.

EXAMPLE 11. (3*aR*, 6*aS*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-butyl]-4-*tert*-butyl-benzamide



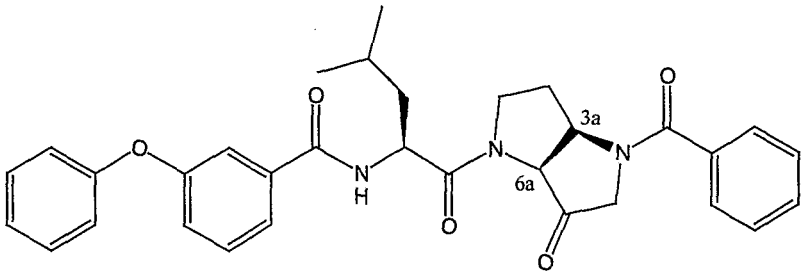
HPLC Rt = 17.4-18.2 mins (> 90%), HPLC-MS 490.2 $[M + H]^+$.

EXAMPLE 12. (3a*R*, 6a*S*)-Quinoxaline-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



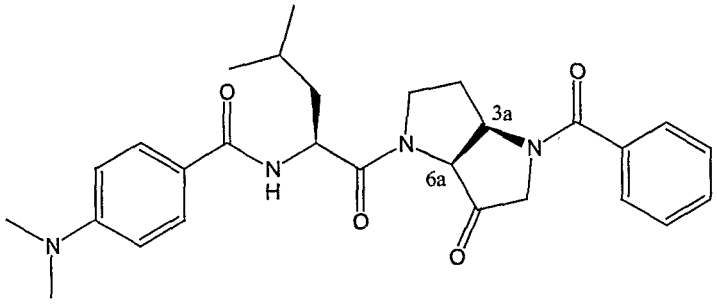
HPLC Rt = 15.6-16.7 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 13. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-3-phenoxy-benzamide



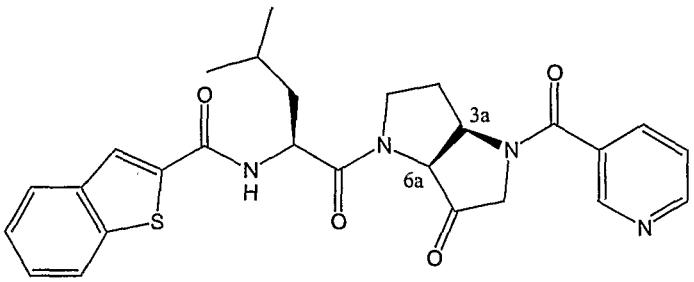
HPLC Rt = 18.5-19.7 mins (> 80%), HPLC-MS 540.1 $[M + H]^+$.

EXAMPLE 14. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



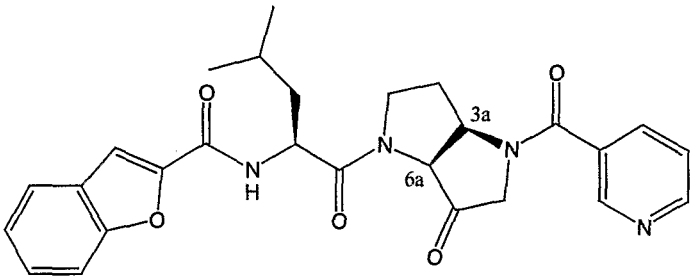
HPLC Rt = 12.16 mins (> 90%), HPLC-MS 491.2 $[M + H]^+$, 509.2 $[M + H + H_2O]^+$.

EXAMPLE 15. (3a*R*, 6a*S*)-Benzo[*b*]thiophene-2-carboxylic acid {(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide



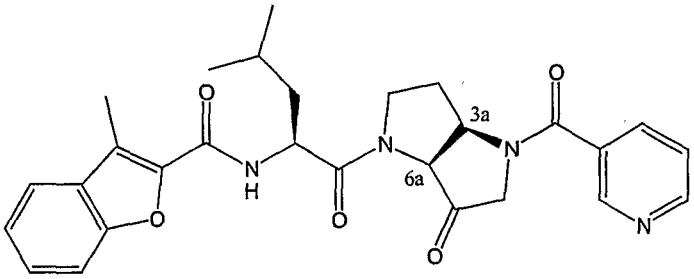
HPLC Rt = 13.93 mins (> 95%), HPLC-MS 505.2 $[M + H]^+$.

EXAMPLE 16. (3a*R*, 6a*S*)-Benzofuran-2-carboxylic acid {(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide



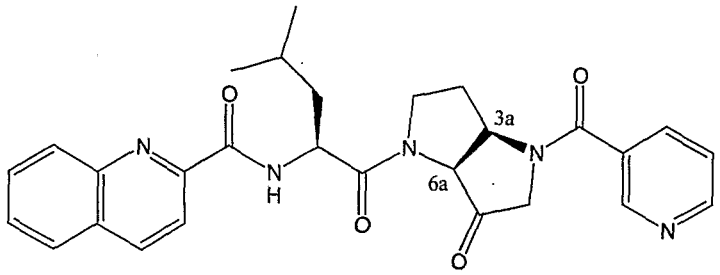
HPLC Rt = 13.42 mins (> 85%), HPLC-MS 489.2 $[M + H]^+$, 999.4 $[2M + Na]^+$.

EXAMPLE 17. (3a*R*, 6a*S*)-3-Methyl-benzofuran-2-carboxylic acid {(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide



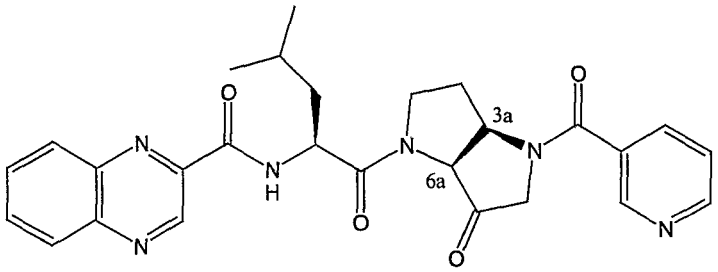
HPLC Rt = 14.58 mins (> 90%), HPLC-MS 503.2 $[M + H]^+$.

EXAMPLE 18. (3a*R*, 6a*S*)-Quinoline-2-carboxylic acid {(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide



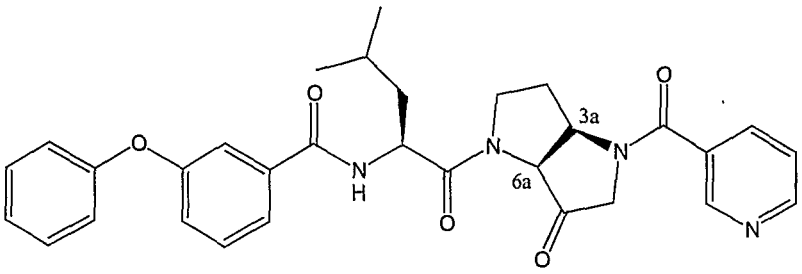
HPLC Rt = 14.00 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 19. (3a*R*, 6a*S*)-Quinoxaline-2-carboxylic acid {(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide



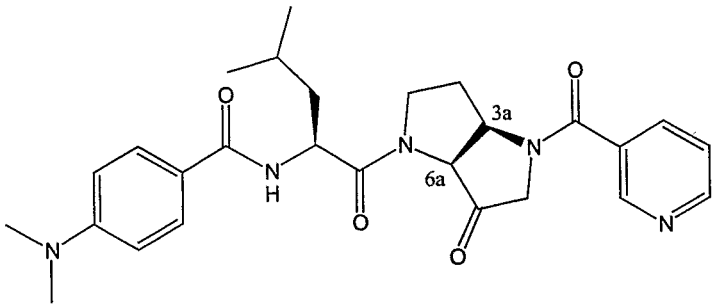
HPLC Rt = 12.77 mins (> 90%), HPLC-MS 501.2 $[M + H]^+$.

EXAMPLE 20. (3a*R*, 6a*S*)-*N*-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-3-phenoxy-benzamide



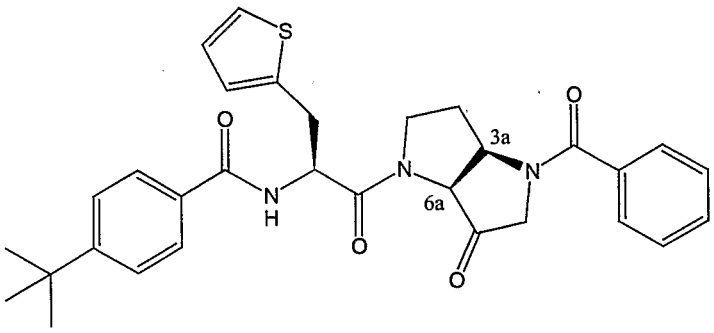
HPLC Rt = 16.06 mins (> 85%), HPLC-MS 541.2 $[M + H]^+$.

EXAMPLE 21. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



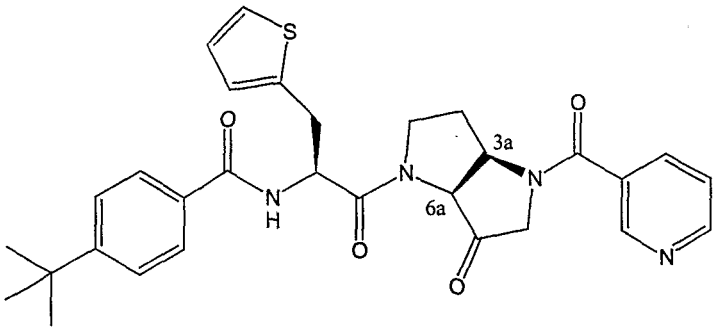
HPLC Rt = 8.70 mins (> 95%), HPLC-MS 255.6 $[M + 2H + H_2O]^{2+}$, 492.2 $[M + H]^+$, 510.2 $[M + H + H_2O]^+$.

EXAMPLE 22. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-2-oxo-1-thiophen-2-ylmethyl-ethyl]-4-*tert*-butyl-benzamide



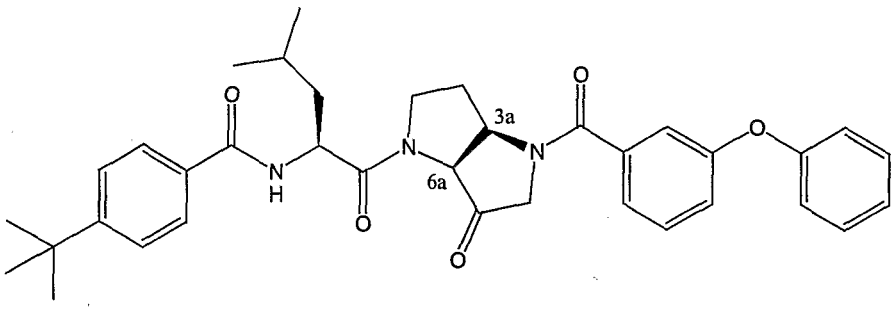
HPLC Rt = 18.0-19.0 mins (> 80%), HPLC-MS 544.2 $[M + H]^+$.

EXAMPLE 23. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-2-oxo-2-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide



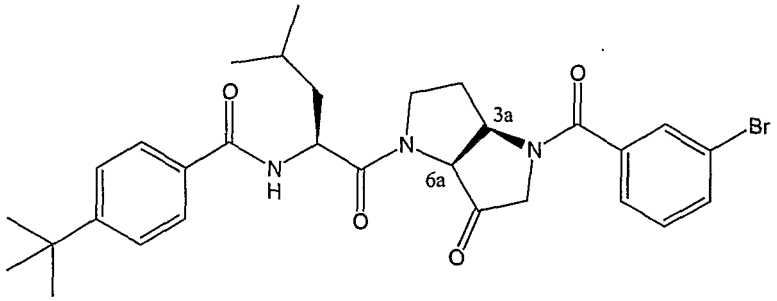
HPLC Rt = 15.626 mins (> 85%), HPLC-MS 545.2 $[M + H]^+$.

EXAMPLE 24. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(3-phenoxy-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



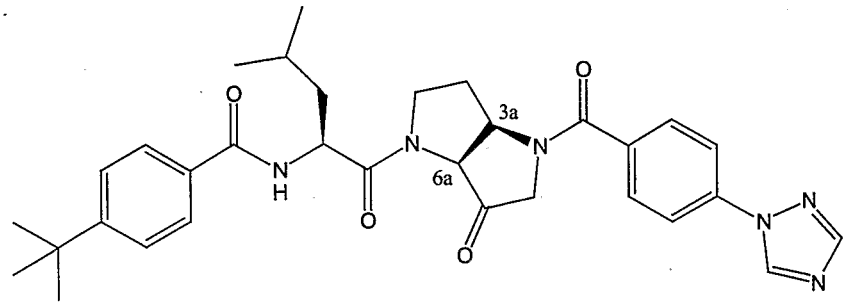
HPLC Rt = 22.0-23.2 mins (> 75%), HPLC-MS 596.1 $[M + H]^+$.

EXAMPLE 25. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Bromo-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



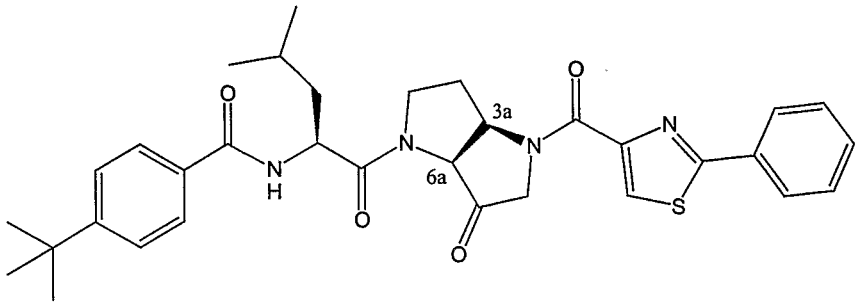
HPLC Rt = 20.3-21.5 mins (> 80%), HPLC-MS 582.1 / 584.1 $[M + H]^+$.

EXAMPLE 26. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(4-[1,2,4] triazol-1-yl-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



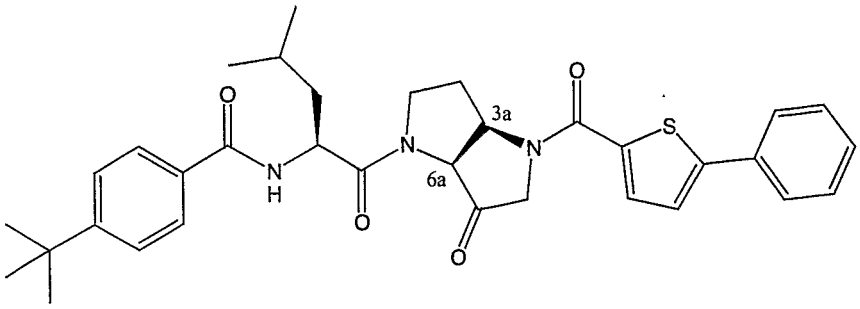
HPLC Rt = 17.4-18.7 mins (> 80%), HPLC-MS 571.1 $[M + H]^+$.

EXAMPLE 27. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-phenyl-thiazole-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



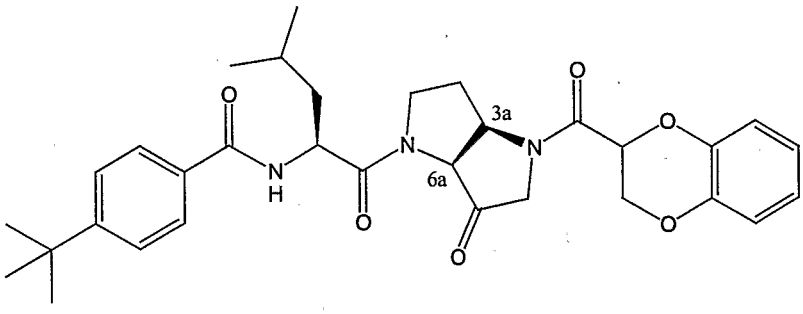
HPLC Rt = 21.4-22.7 mins (> 80%), HPLC-MS 587.1 $[M + H]^+$.

EXAMPLE 28. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(5-phenyl-thiophene-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



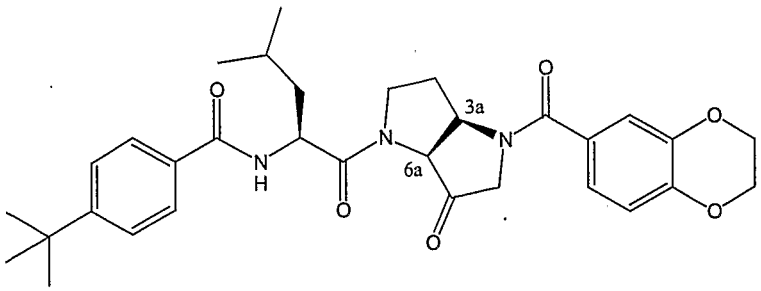
HPLC Rt = 22.0-23.0 mins (> 70%), HPLC-MS 586.1 $[M + H]^+$.

EXAMPLE 29. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-[4-(2,3-dihydro-benzo[1,4]dioxine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



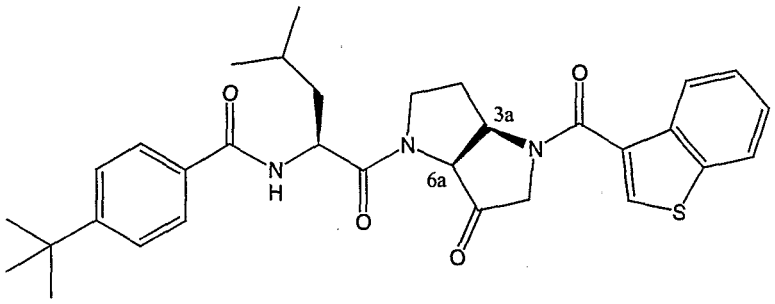
HPLC Rt = 20.1-21.3 mins (> 80%), HPLC-MS 562.1 $[M + H]^+$.

EXAMPLE 30. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-[4-(2,3-dihydro-benzo[1,4]dioxine-6-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



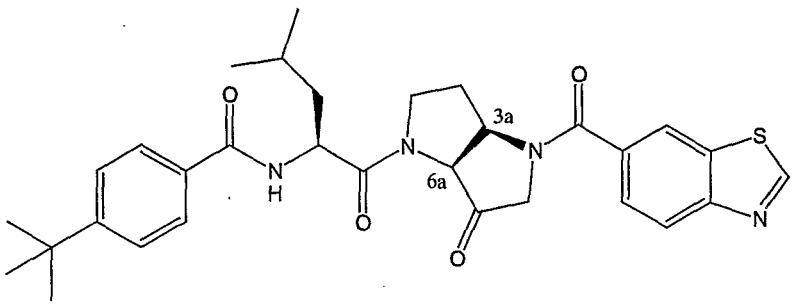
HPLC Rt = 18.3-19.1 mins (> 85%), HPLC-MS 562.1 $[M + H]^+$.

EXAMPLE 31. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



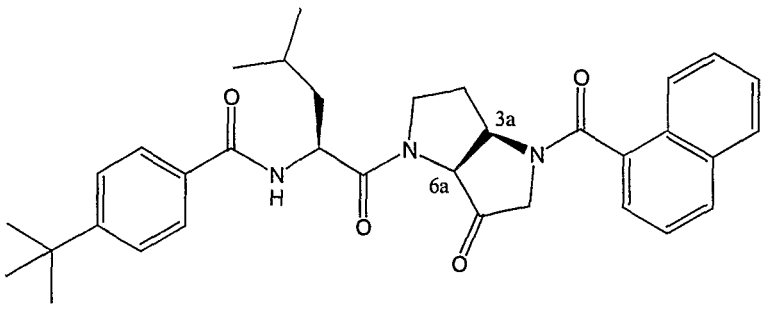
HPLC Rt = 20.5-21.8 mins (> 80%), HPLC-MS 560.2 $[M + H]^+$.

EXAMPLE 32. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzothiazole-6-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



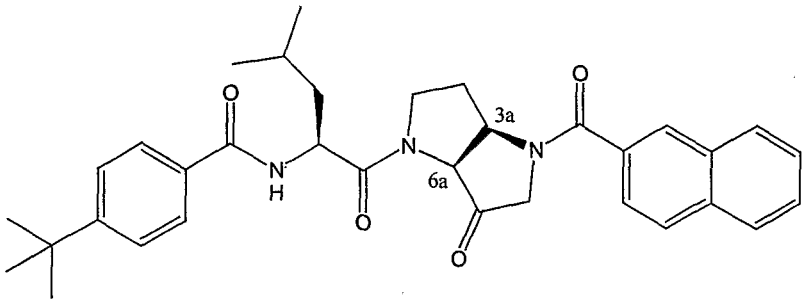
HPLC Rt = 17.9-18.9 mins (> 75%), HPLC-MS 561.2 $[M + H]^+$.

EXAMPLE 33. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[4-(naphthalene-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



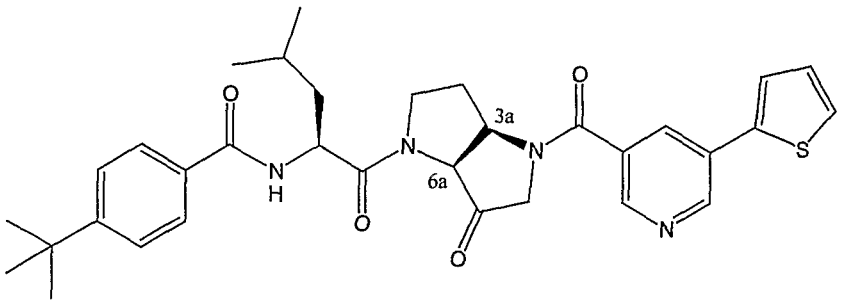
HPLC Rt = 20.5-21.7 mins (> 80%), HPLC-MS 554.1 $[M + H]^+$.

EXAMPLE 34. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[4-(naphthalene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



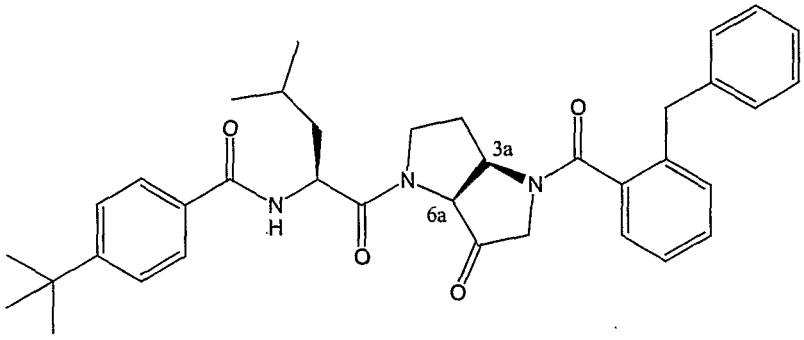
HPLC Rt = 20.7-21.8 mins (> 75%), HPLC-MS 554.2 $[M + H]^+$.

EXAMPLE 35. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(5-thiophen-2-yl-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



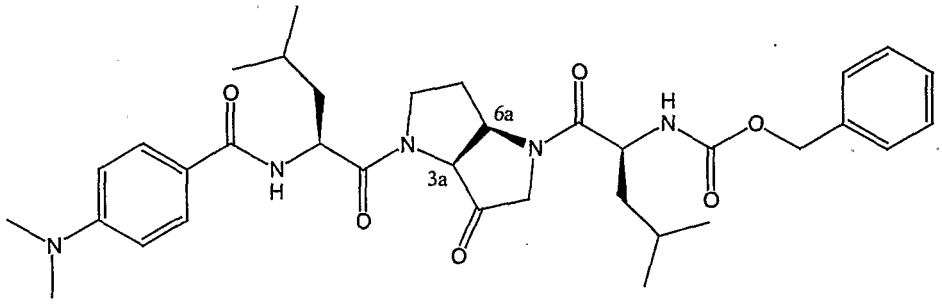
HPLC Rt = 18.9-19.8 mins (> 70%), HPLC-MS 587.1 $[M + H]^+$.

EXAMPLE 36. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Benzyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



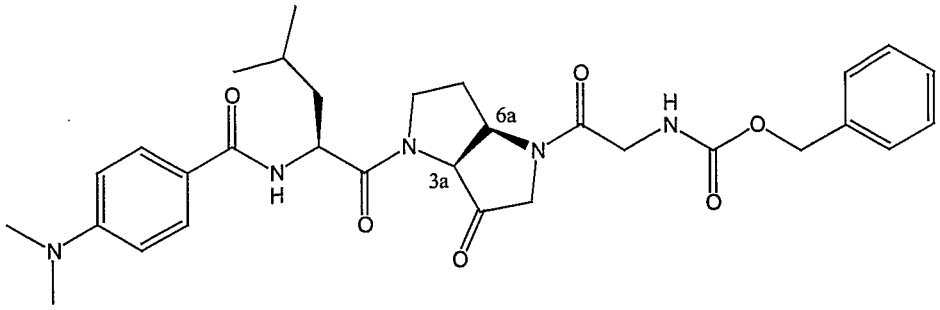
HPLC Rt = 21.8-22.9 mins (> 80%), HPLC-MS 594.1 $[M + H]^+$.

EXAMPLE 37. (3a*S*, 6a*R*)-((1*S*)-1-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-carbamic acid benzyl ester



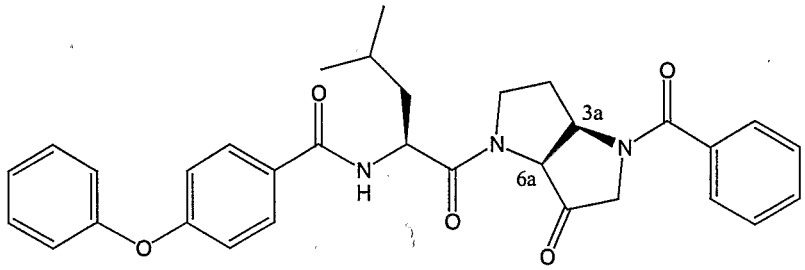
HPLC Rt = 17.15 mins (> 85%), HPLC-MS 634.3 $[M + H]^+$.

EXAMPLE 38. (3a*S*, 6a*R*)-(2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-2-oxo-ethyl)-carbamic acid benzyl ester



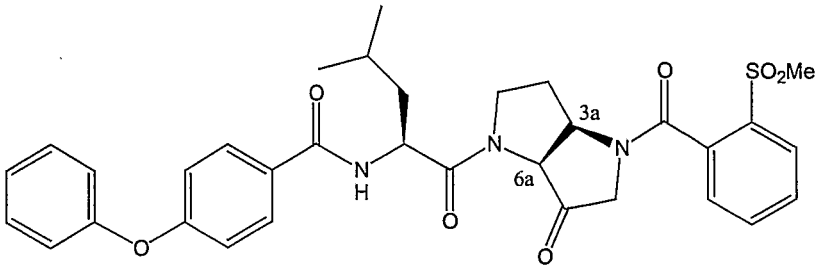
HPLC Rt = 13.79 mins (> 85%), HPLC-MS 578.3 $[M + H]^+$.

EXAMPLE 39. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-phenoxy-benzamide



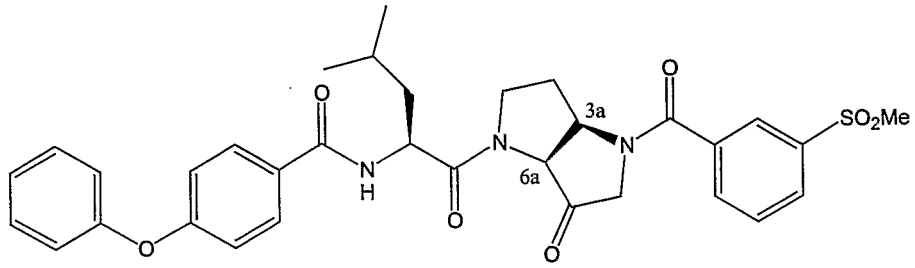
HPLC Rt = 17.5-18.2 mins (> 75%), HPLC-MS 540.2 $[M + H]^+$.

EXAMPLE 40. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-phenoxy-benzamide



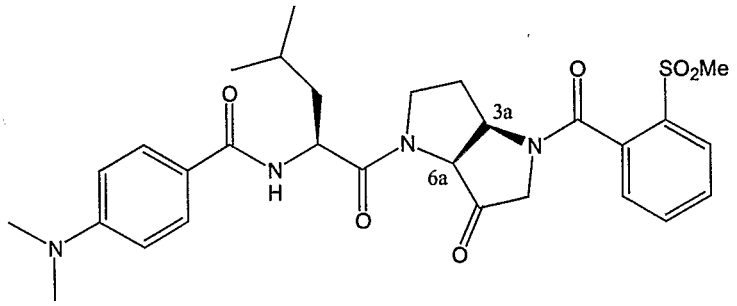
HPLC Rt = 16.9-17.9 mins (> 75%), HPLC-MS 618.2 $[M + H]^+$, 636.2 $[M + H + H_2O]^+$.

EXAMPLE 41. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-phenoxy-benzamide



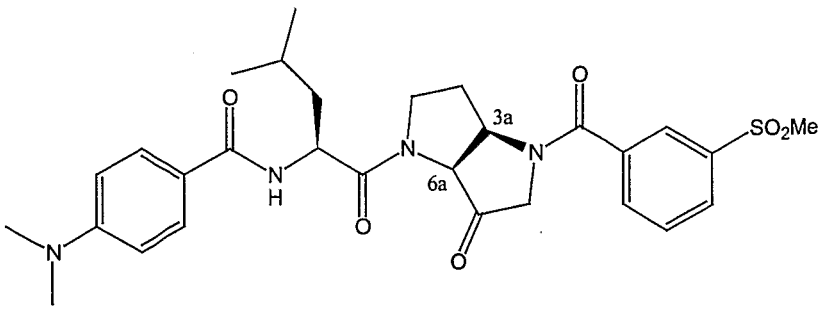
HPLC Rt = 16.6-17.7 mins (> 70%), HPLC-MS 618.2 $[M + H]^+$.

EXAMPLE 42. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



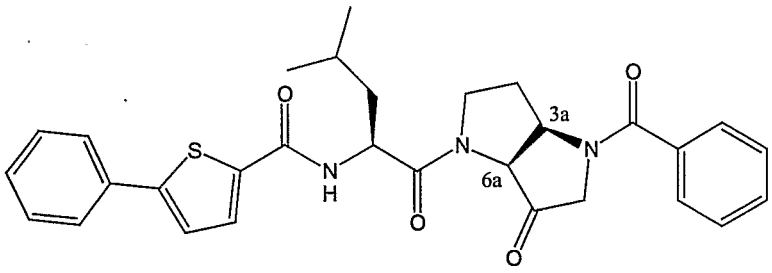
HPLC Rt = 13.10 mins (> 90%), HPLC-MS 569.3 $[M + H]^+$, 1159.4 $[2M + Na]^+$.

EXAMPLE 43. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



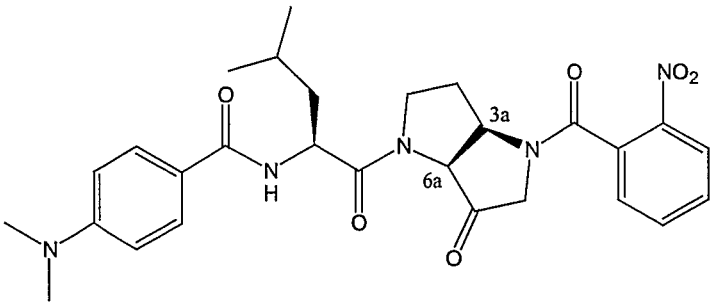
HPLC Rt = 11.59 mins (> 95%), HPLC-MS 569.2 $[M + H]^+$, 587.2 $[M + H + H_2O]^+$.

EXAMPLE 44. (3a*R*, 6a*S*)-5-Phenyl-thiophene-2-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



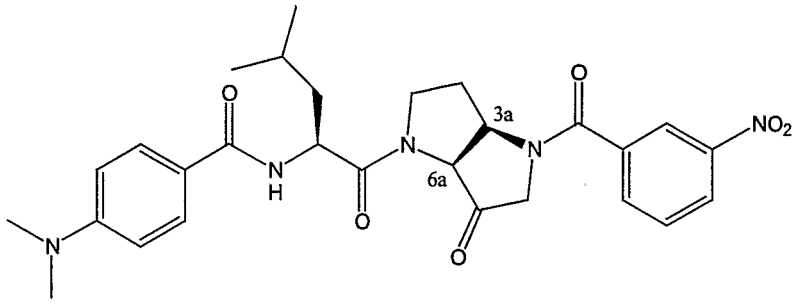
HPLC Rt = 17.2-18.1 mins (> 75%), HPLC-MS 530.2 $[M + H]^+$.

EXAMPLE 45. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(2-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



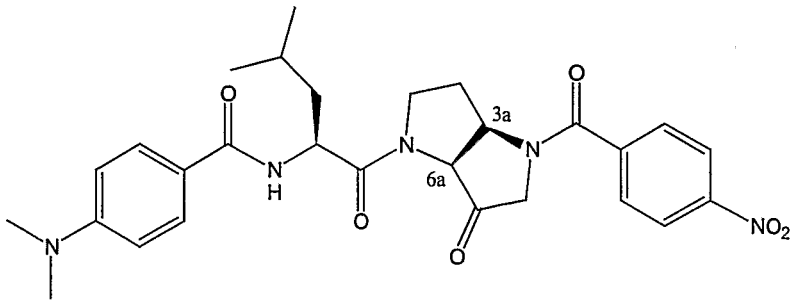
HPLC Rt = 12.47 mins (> 95%), HPLC-MS 536.2 $[M + H]^+$, 554.2 $[M + H + H_2O]^+$.

EXAMPLE 46. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(3-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



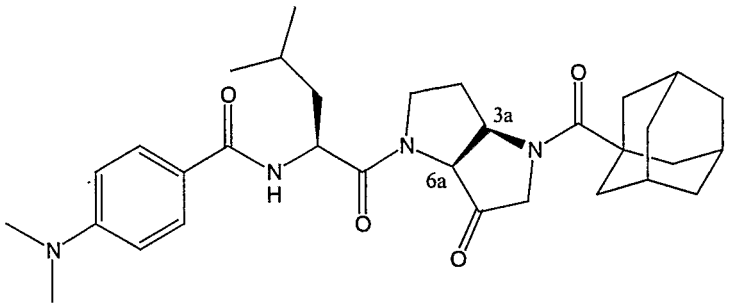
HPLC Rt = 13.17 mins (> 90%), HPLC-MS 536.2 $[M + H]^+$, 554.2 $[M + H + H_2O]^+$.

EXAMPLE 47. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(4-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



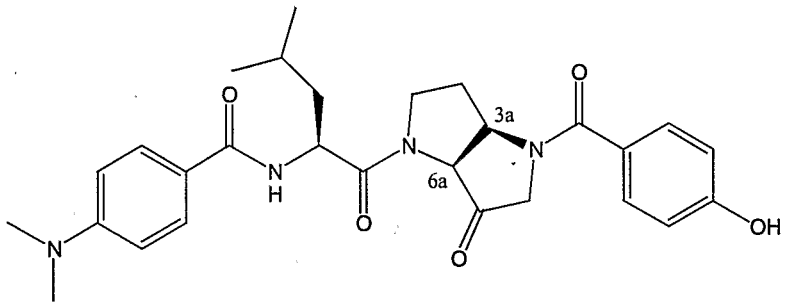
HPLC Rt = 13.19 mins (> 95%), HPLC-MS 536.2 $[M + H]^+$, 554.2 $[M + H + H_2O]^+$.

EXAMPLE 48. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Adamantane-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



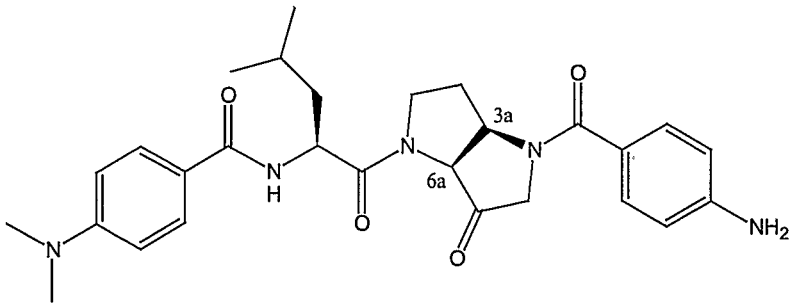
HPLC Rt = 16.4-17.1 mins (> 50%), HPLC-MS 549.3 $[M + H]^+$.

EXAMPLE 49. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(4-hydroxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



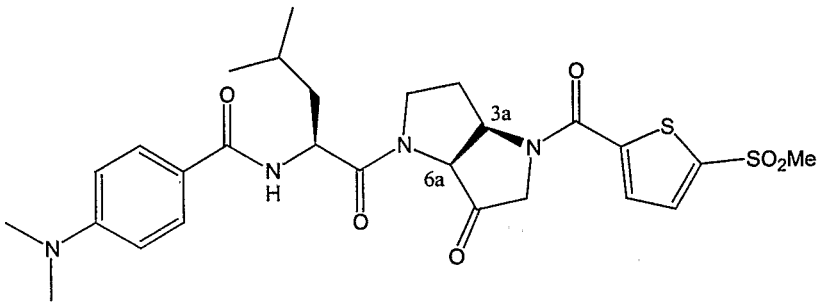
HPLC Rt = 11.05 mins (> 90%), HPLC-MS 507.2 $[M + H]^+$, 525.2 $[M + H + H_2O]^+$.

EXAMPLE 50. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(4-Amino-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



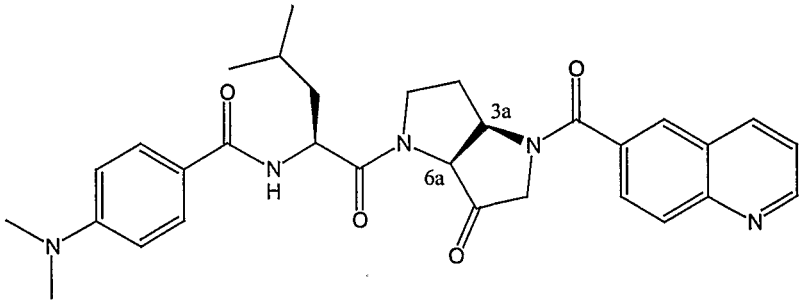
HPLC Rt = 9.33 mins (> 85%), HPLC-MS 506.2 $[M + H]^+$, 524.2 $[M + H + H_2O]^+$.

EXAMPLE 51. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(5-methanesulfonyl-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



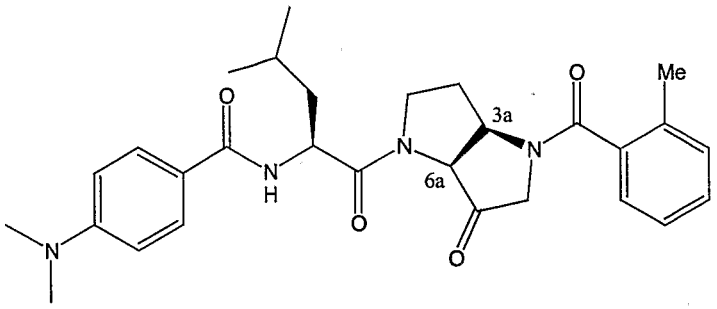
HPLC Rt = 12.10 mins (> 95%), HPLC-MS 575.1 $[M + H]^+$, 593.1 $[M + H + H_2O]^+$.

EXAMPLE 52. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(quinoline-6-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



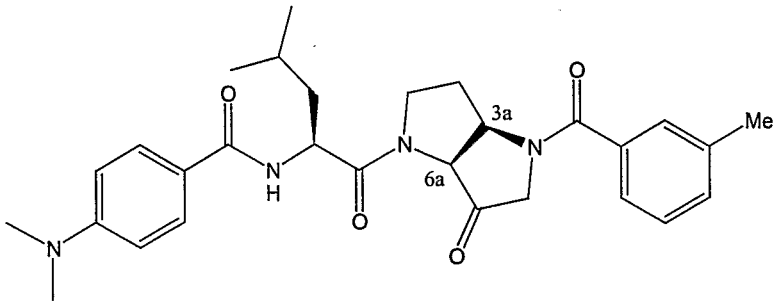
HPLC Rt = 9.99 mins (> 85%), HPLC-MS 542.2 $[M + H]^+$, 560.2 $[M + H + H_2O]^+$.

EXAMPLE 53. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(2-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



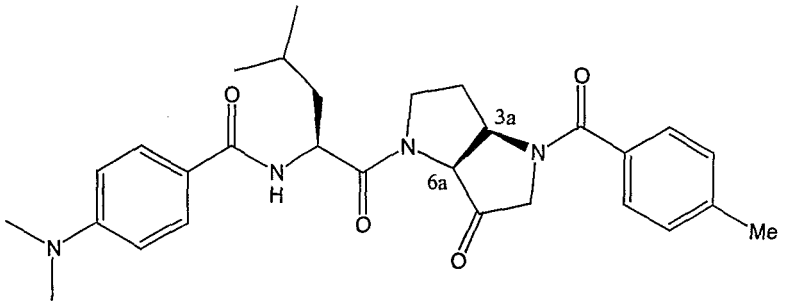
HPLC Rt = 13.08 mins (> 90%), HPLC-MS 505.2 $[M + H]^+$, 523.2 $[M + H + H_2O]^+$.

EXAMPLE 54. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(3-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



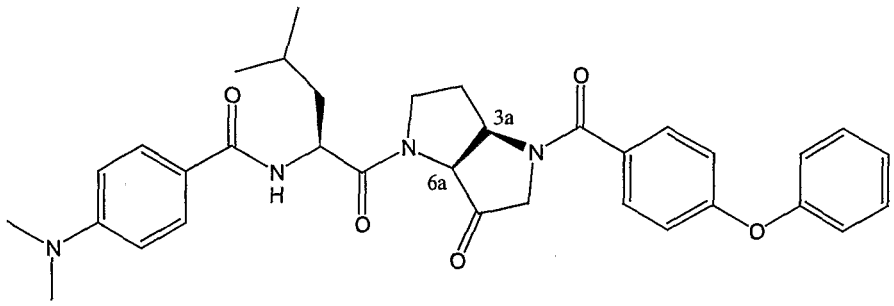
HPLC Rt = 13.12 mins (> 85%), HPLC-MS 505.2 $[M + H]^+$, 523.2 $[M + H + H_2O]^+$.

EXAMPLE 55. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(4-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



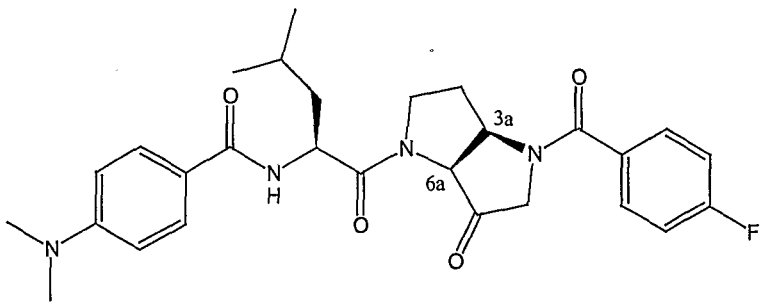
HPLC Rt = 13.65 mins (> 90%), HPLC-MS 505.2 $[M + H]^+$, 523.2 $[M + H + H_2O]^+$.

EXAMPLE 56. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(4-phenoxy-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



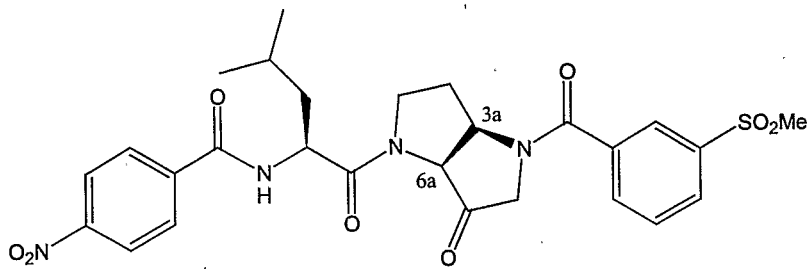
HPLC Rt = 16.38 mins (> 80%), HPLC-MS 583.2 $[M + H]^+$.

EXAMPLE 57. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(4-fluoro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



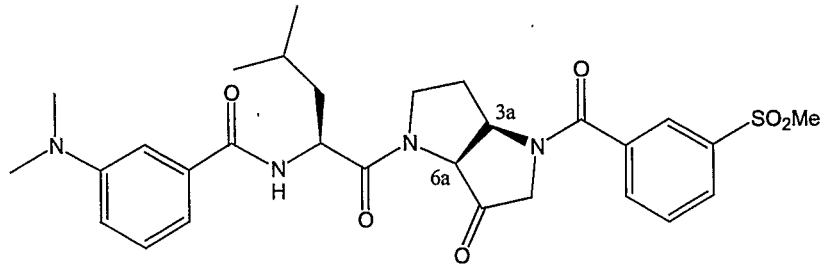
HPLC Rt = 12.83 mins (> 90%), HPLC-MS 509.1 $[M + H]^+$, 527.1 $[M + H + H_2O]^+$.

EXAMPLE 58. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-nitro-benzamide



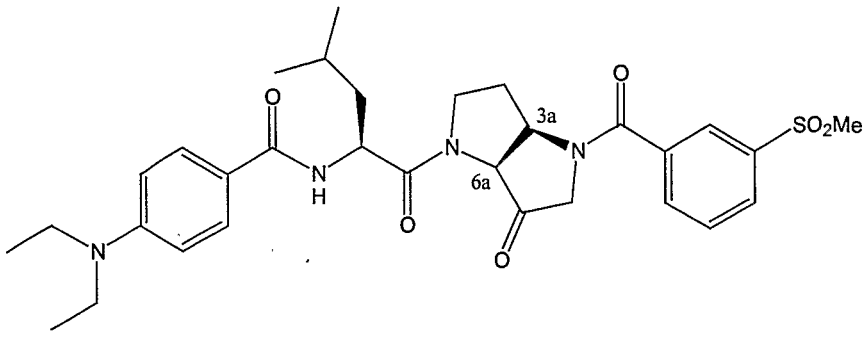
HPLC Rt = 13.37 mins (> 95%), HPLC-MS 571.1 $[M + H]^+$.

EXAMPLE 59. (3a*R*, 6a*S*)-3-Dimethylamino-*N*-{(1*S*)-1-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



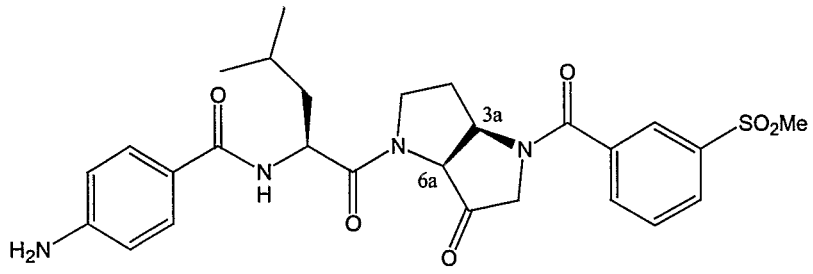
HPLC Rt = 10.29 mins (> 85%), HPLC-MS 569.1 $[M + H]^+$, 587.2 $[M + H + H_2O]^+$.

EXAMPLE 60. (3a*R*, 6a*S*)-4-Diethylamino-*N*-{(1*S*)-1-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



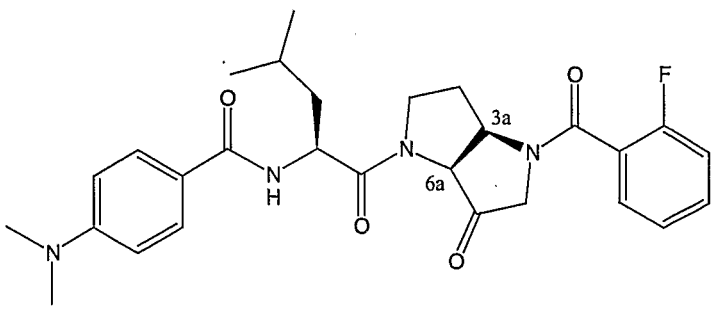
HPLC Rt = 11.13 mins (> 90%), HPLC-MS 597.2 $[M + H]^+$, 615.2 $[M + H + H_2O]^+$.

EXAMPLE 61. (3a*R*, 6a*S*)-4-Amino-*N*-{(1*S*)-1-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



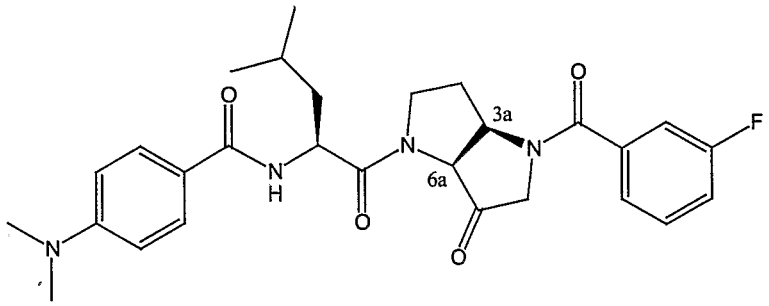
HPLC Rt = 9.69 mins (> 80%), HPLC-MS 541.1 $[M + H]^+$.

EXAMPLE 62. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-fluoro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



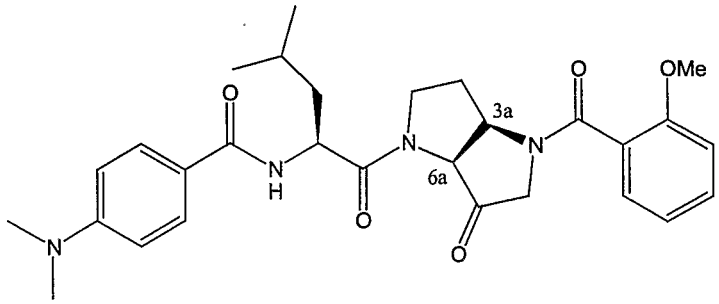
HPLC Rt = 9.18 mins (> 95%), HPLC-MS 509.2 $[M + H]^+$, 527.2 $[M + H + H_2O]^+$.

EXAMPLE 63. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3-fluoro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



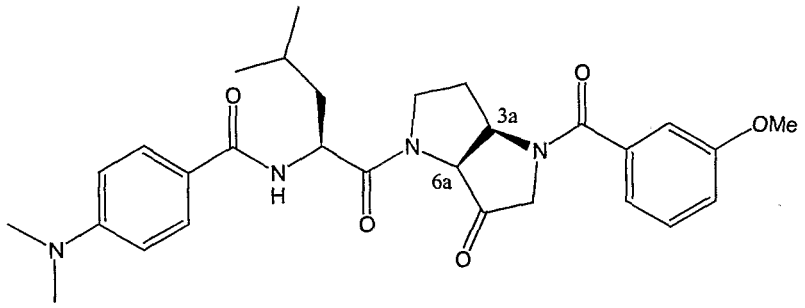
HPLC Rt = 10.59 mins (> 90%), HPLC-MS 509.2 $[M + H]^+$, 527.2 $[M + H + H_2O]^+$.

EXAMPLE 64. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-methoxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



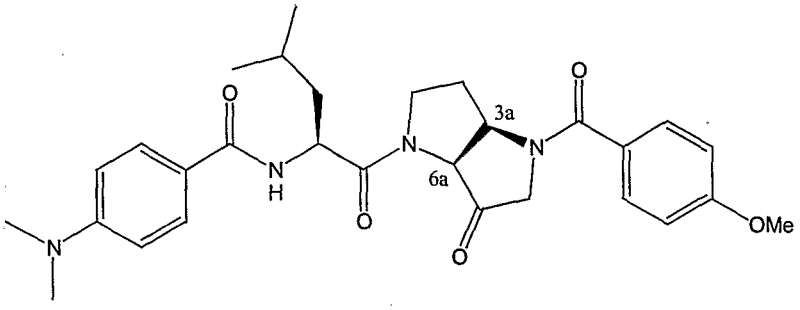
HPLC Rt = 11.20 mins (> 95%), HPLC-MS 521.2 $[M + H]^+$.

EXAMPLE 65. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3-methoxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



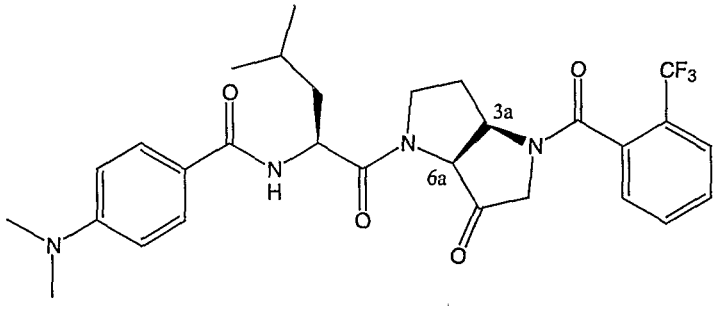
HPLC Rt = 12.5 mins (> 90%), HPLC-MS 521.2 $[M + H]^+$.

EXAMPLE 66. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(4-methoxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



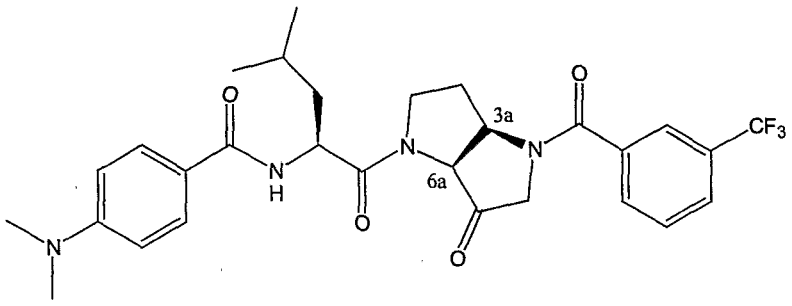
HPLC Rt = 13.33 mins (> 95%), HPLC-MS 521.1 $[M + H]^+$.

EXAMPLE 67. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-trifluoromethyl-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



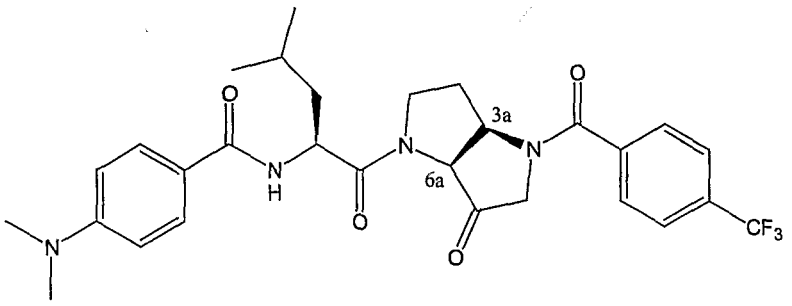
HPLC Rt = 10.98 mins (> 95%), HPLC-MS 559.2 $[M + H]^+$, 577.2 $[M + H + H_2O]^+$.

EXAMPLE 68. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(3-trifluoromethyl-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



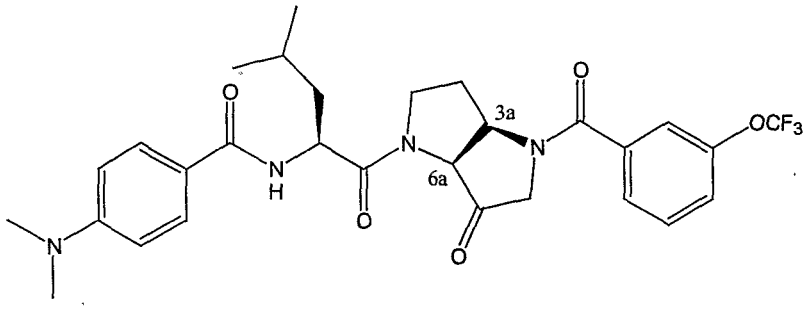
HPLC Rt = 12.11 mins (> 95%), HPLC-MS 559.2 $[M + H]^+$, 577.2 $[M + H + H_2O]^+$.

EXAMPLE 69. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(4-trifluoromethyl-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



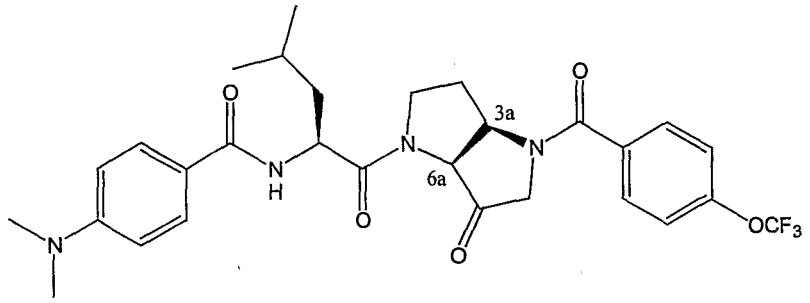
HPLC Rt = 9.76 mins (> 95%), HPLC-MS 559.2 $[M + H]^+$, 577.2 $[M + H + H_2O]^+$.

EXAMPLE 70. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(3-trifluoromethoxy-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



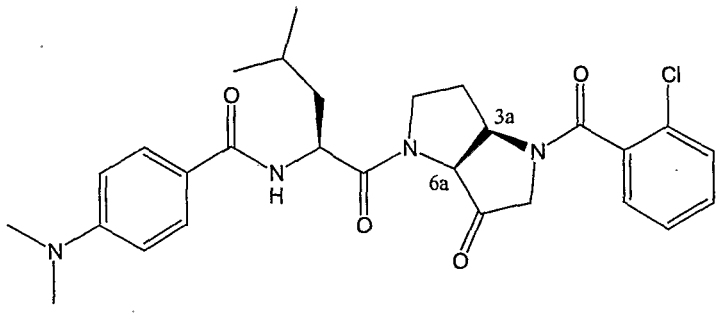
HPLC Rt = 10.42 mins (> 95%), HPLC-MS 575.2 $[M + H]^+$, 593.2 $[M + H + H_2O]^+$.

EXAMPLE 71. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(4-trifluoromethoxy-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



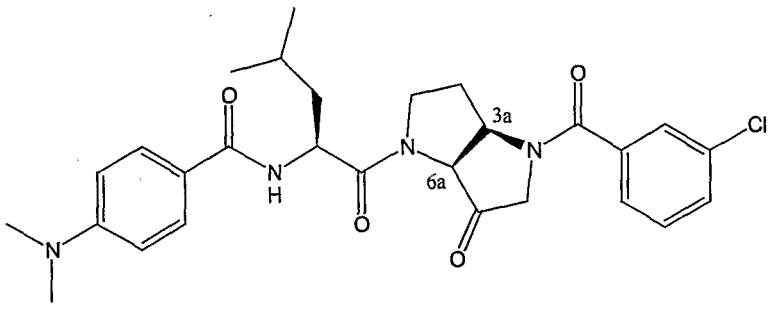
HPLC Rt = 10.48 mins (> 95%), HPLC-MS 575.2 $[M + H]^+$, 593.2 $[M + H + H_2O]^+$.

EXAMPLE 72. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Chloro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



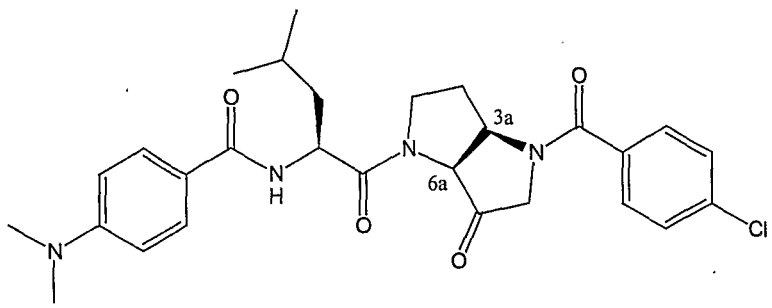
HPLC Rt = 9.99 mins (> 95%), HPLC-MS 525.2 / 527.2 $[M + H]^+$, 543.2 / 545.2 $[M + H + H_2O]^+$.

EXAMPLE 73. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Chloro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



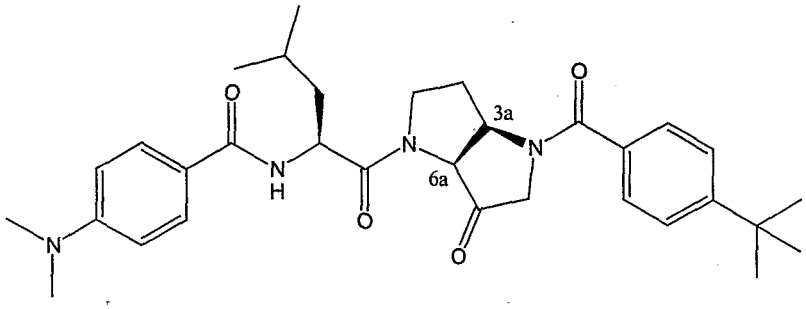
HPLC Rt = 11.08 mins (> 95%), HPLC-MS 525.2 / 527.2 $[M + H]^+$, 543.2 / 545.2 $[M + H + H_2O]^+$.

EXAMPLE 74. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(4-Chloro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



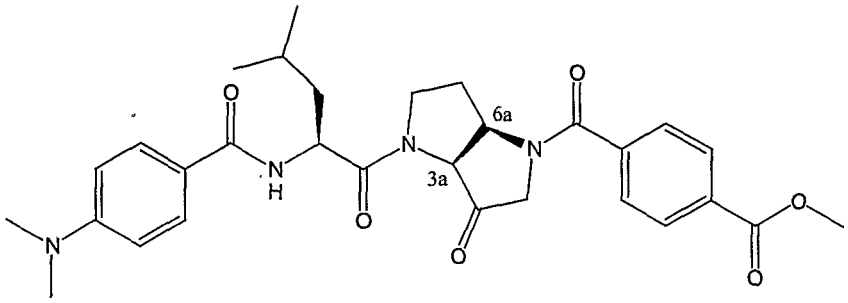
HPLC Rt = 11.03 mins (> 95%), HPLC-MS 525.2 / 527.2 $[M + H]^+$, 543.2 / 545.2 $[M + H + H_2O]^+$.

EXAMPLE 75. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(4-*tert*-Butyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



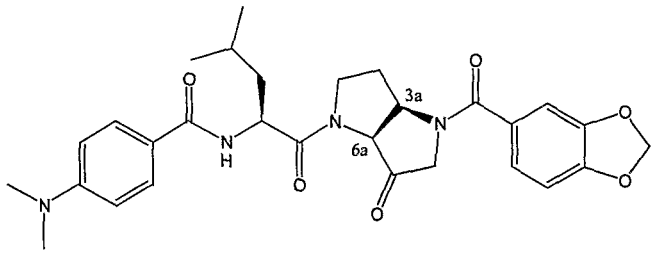
HPLC Rt = 11.51 mins (> 95%), HPLC-MS 547.3 $[M + H]^+$.

EXAMPLE 76. (3a*S*, 6a*R*)-4-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-benzoic acid methyl ester



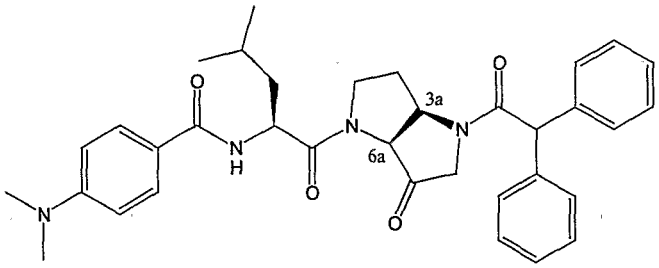
HPLC Rt = 9.76 mins (> 95%), HPLC-MS 549.2 $[M + H]^+$, 567.2 $[M + H + H_2O]^+$.

EXAMPLE 77. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[1,3]dioxole-5-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



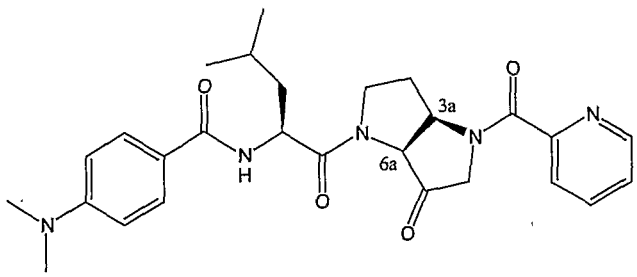
HPLC Rt = 12.3 mins (> 90%), HPLC-MS 535.2 $[M + H]^+$.

EXAMPLE 78. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-1-(4-diphenylacetyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



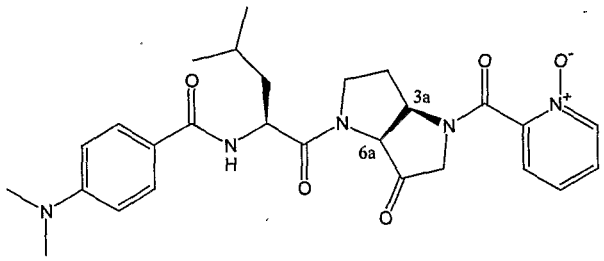
HPLC Rt = 14.0-15.1 mins (> 85%), HPLC-MS 581.2 $[M + H]^+$.

EXAMPLE 79. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



HPLC Rt = 6.17 mins (> 95%), HPLC-MS 492.2 $[M + H]^+$.

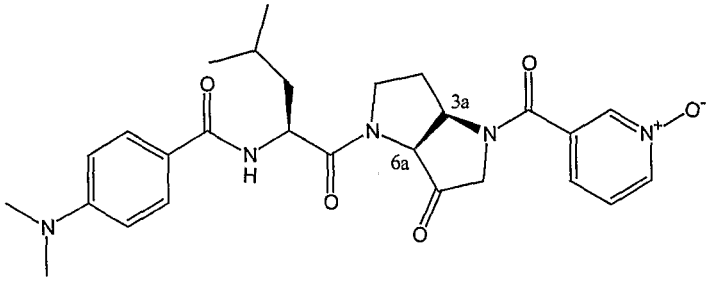
EXAMPLE 80. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{1*S*)-3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



HPLC Rt = 5.82 mins (> 75%), HPLC-MS 508.2 $[M + H]^+$.

Oxidation of the intermediate was performed as detailed in the general soild phase methods prior to compound release from the solid phase.

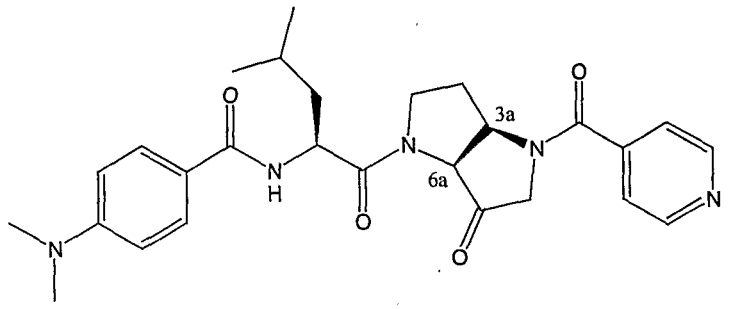
EXAMPLE 81. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



HPLC Rt = 4.7 mins (> 95%), HPLC-MS 508.2 $[M + H]^+$, 526.2 $[M + H + H_2O]^+$.

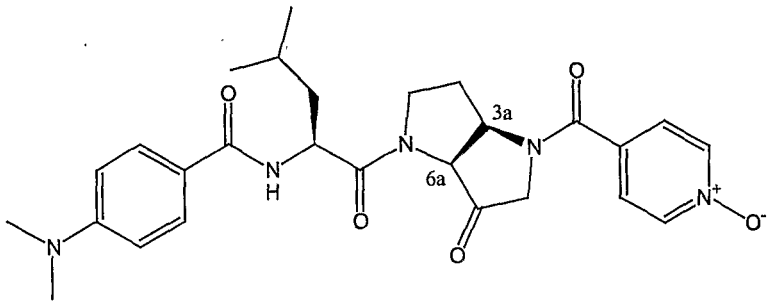
Oxidation of the intermediate was performed as detailed in the general soild phase methods prior to compound release from the solid phase.

EXAMPLE 82. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



HPLC Rt = 4.5 mins (> 95%), HPLC-MS 492.2 $[M + H]^+$, 510.2 $[M + H + H_2O]^+$.

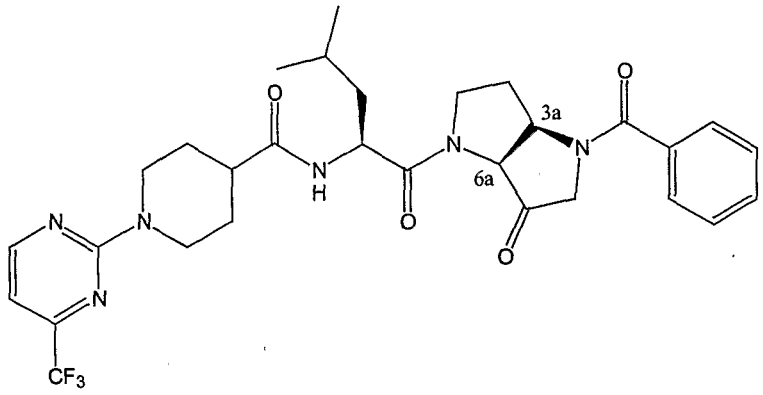
EXAMPLE 83. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



HPLC Rt = 4.9 mins (> 95%), HPLC-MS 508.2 $[M + H]^+$, 526.2 $[M + H + H_2O]^+$.

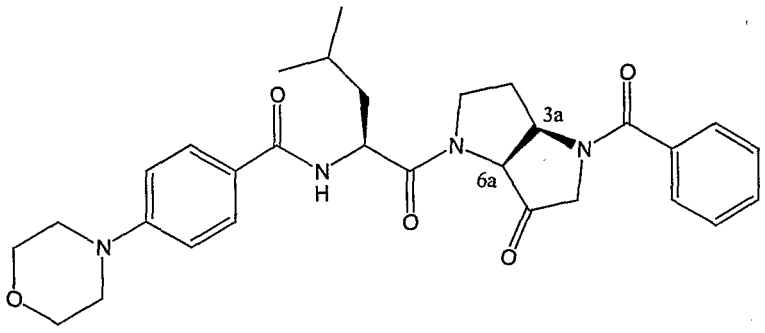
Oxidation of the intermediate was performed as detailed in the general soild phase methods prior to compound release from the solid phase.

EXAMPLE 84. (3a*R*, 6a*S*)-1-(4-Trifluoromethyl-pyrimidin-2-yl)-piperidine-4-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



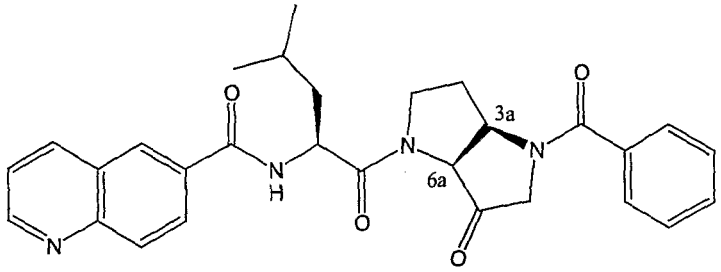
HPLC Rt = 16.49 mins (> 95%), HPLC-MS 601.2 $[M + H]^+$.

EXAMPLE 85. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide



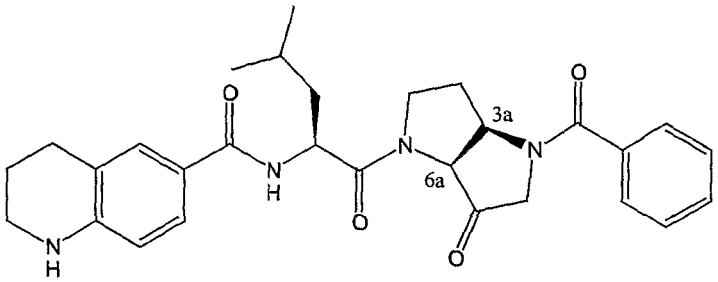
HPLC Rt = 9.37 mins (> 95%), HPLC-MS 533.2 $[M + H]^+$.

EXAMPLE 86. (3a*R*, 6a*S*)-Quinoline-6-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



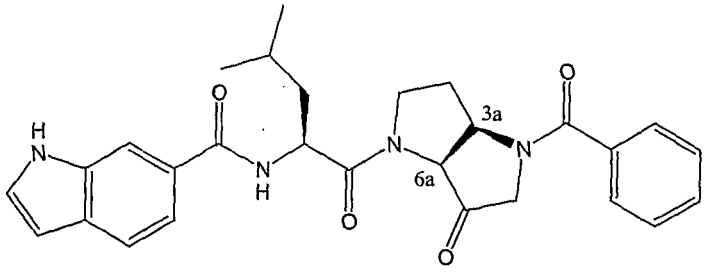
HPLC Rt = 11.73 mins (> 95%), HPLC-MS 499.2 $[M + H]^+$.

EXAMPLE 87. (3a*R*, 6a*S*)-1,2,3,4-Tetrahydro-quinoline-6-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



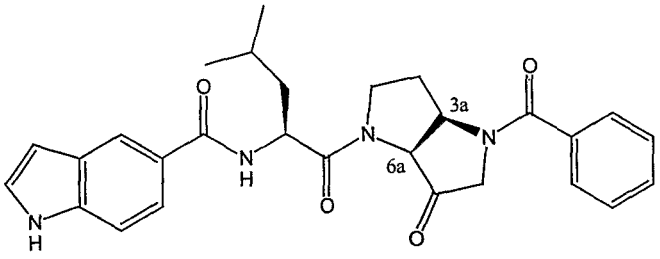
HPLC Rt = 9.06 mins (> 95%), HPLC-MS 503.2 $[M + H]^+$, 521.2 $[M + H + H_2O]^+$.

EXAMPLE 88. (3a*R*, 6a*S*)-1*H*-Indole-6-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



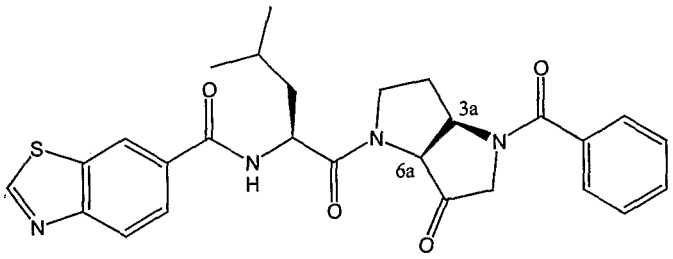
HPLC Rt = 10.13 mins (> 85%), HPLC-MS 487.1 $[M + H]^+$.

EXAMPLE 89. (3a*R*, 6a*S*)-1*H*-Indole-5-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



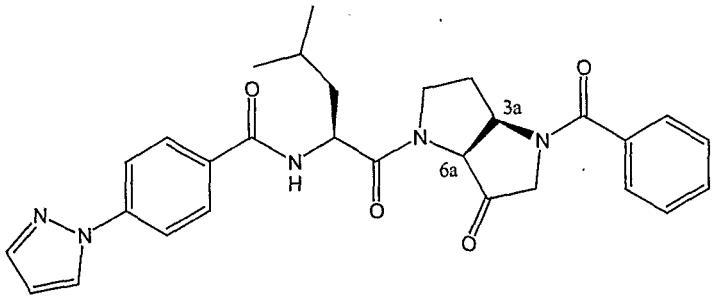
HPLC Rt = 9.58 mins (> 85%), HPLC-MS 487.2 $[M + H]^+$.

EXAMPLE 90. (3a*R*, 6a*S*)-Benzothiazole-6-carboxylic acid [(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



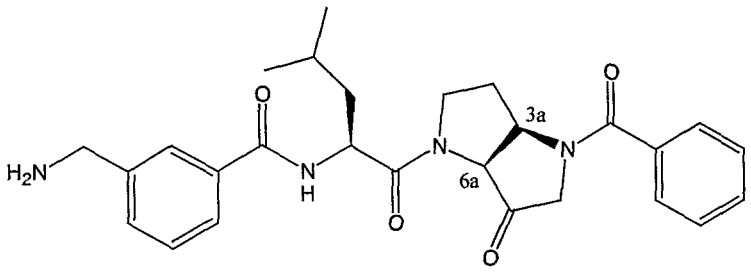
HPLC Rt = 14.15 mins (> 95%), HPLC-MS 505.1 $[M + H]^+$.

EXAMPLE 91. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrazol-1-yl-benzamide



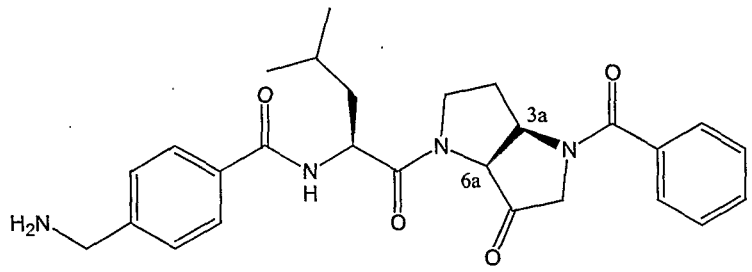
HPLC Rt = 10.25 mins (> 95%), HPLC-MS 514.2 $[M + H]^+$.

EXAMPLE 92. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



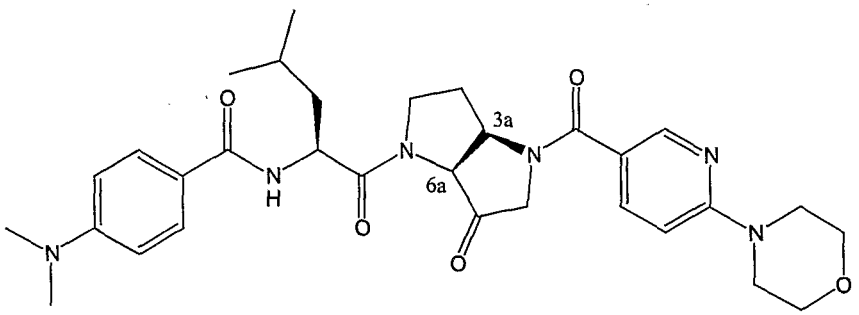
HPLC Rt = 7.42 mins (> 95%), HPLC-MS 477.2 $[M + H]^+$, 495.2 $[M + H + H_2O]^+$, 975.3 $[2M + Na]^+$.

EXAMPLE 93. (3a*R*, 6a*S*)-4-Aminomethyl-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



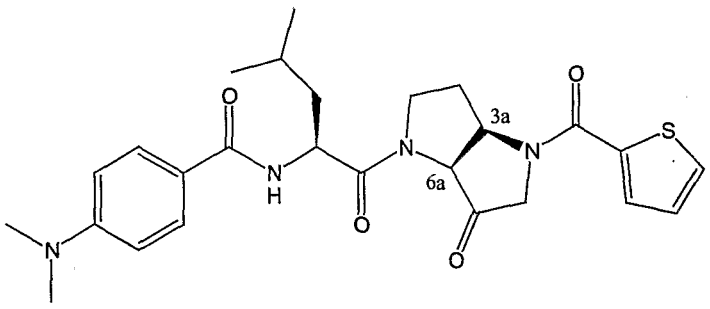
HPLC Rt = 6.86 mins (> 95%), HPLC-MS 477.2 $[M + H]^+$, 495.2 $[M + H + H_2O]^+$, 975.3 $[2M + Na]^+$.

EXAMPLE 94. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(6-morpholin-4-yl-pyridine-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



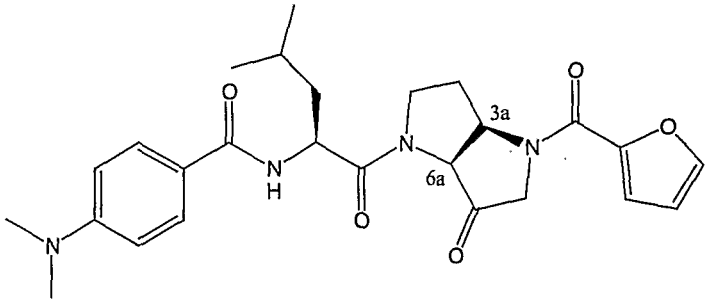
HPLC Rt = 4.4 mins (> 90%), HPLC-MS 577.2 $[M + H]^+$.

EXAMPLE 95. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(thiophene-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



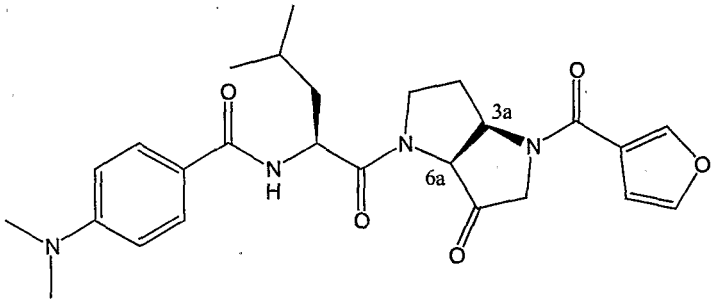
HPLC Rt = 7.7 mins (> 90%), HPLC-MS 497.1 $[M + H]^+$.

EXAMPLE 96. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



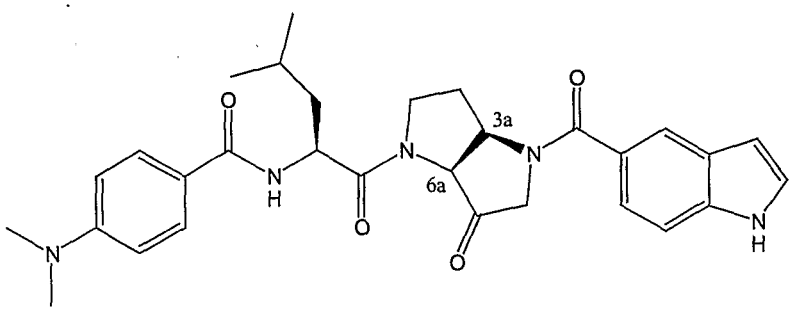
HPLC Rt = 7.3 mins (> 90%), HPLC-MS 481.2 $[M + H]^+$, 499.2 $[M + H + H_2O]^+$, 983.3 $[2M + Na]^+$.

EXAMPLE 97. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



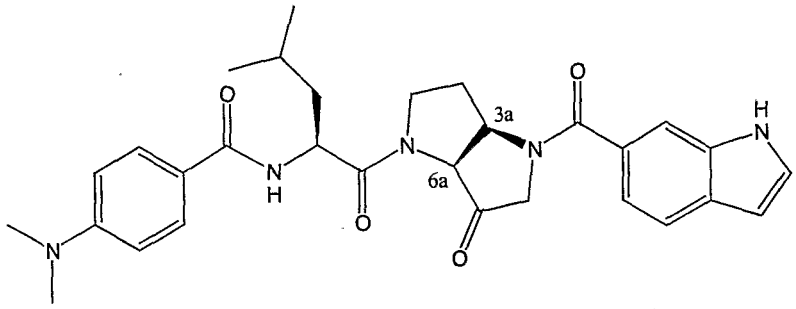
HPLC Rt = 7.30 mins (> 90%), HPLC-MS 481.2 $[M + H]^+$, 499.2 $[M + H + H_2O]^+$, 983.3 $[2M + Na]^+$.

EXAMPLE 98. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(1*H*-indole-5-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



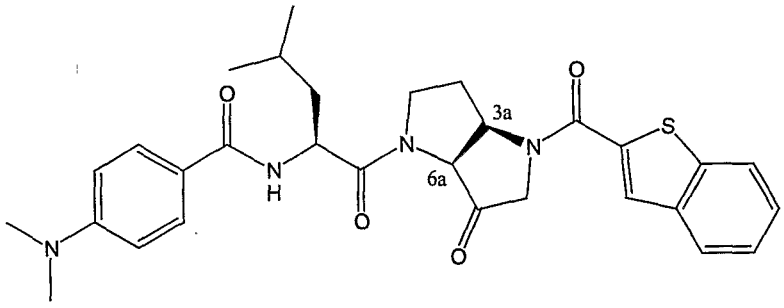
HPLC Rt = 9.0 mins (> 80%), HPLC-MS 530.2 $[M + H]^+$.

EXAMPLE 99. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(1*H*-indole-6-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



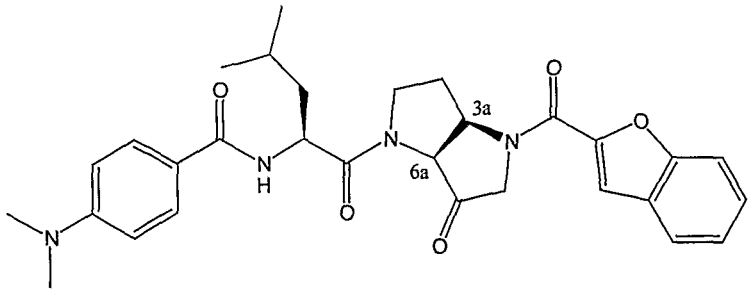
HPLC Rt = 7.8 mins (> 80%), HPLC-MS 530.2 $[M + H]^+$.

EXAMPLE 100. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[*b*]thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



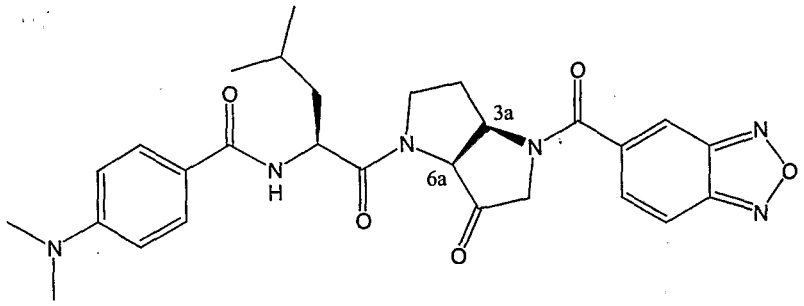
HPLC Rt = 12.85 mins (> 95%), HPLC-MS 547.2 $[M + H]^+$.

EXAMPLE 101. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzofuran-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



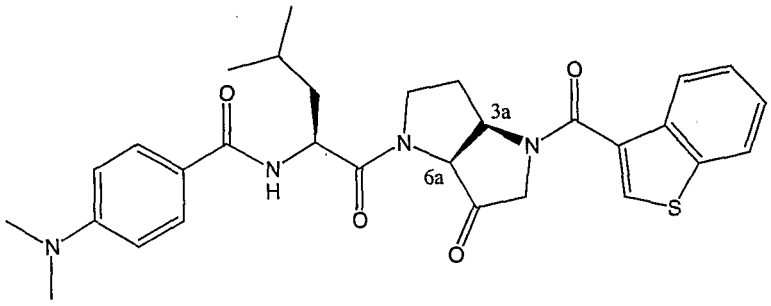
HPLC Rt = 11.9 mins (> 95%), HPLC-MS 531.2 $[M + H]^+$.

EXAMPLE 102. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[1,2,5]oxadiazole-5-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



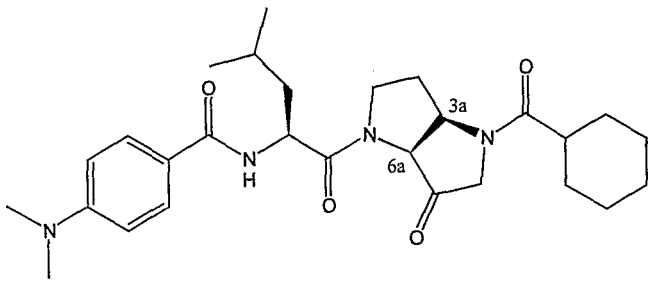
HPLC Rt = 7.06 mins (> 90%), HPLC-MS 533.2 $[M + H]^+$, 551.2 $[M + H + H_2O]^+$.

EXAMPLE 103. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



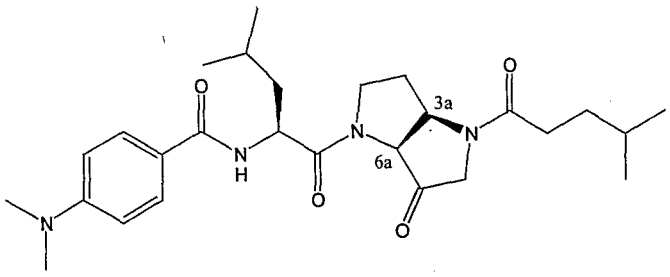
HPLC Rt = 11.8 mins (> 95%), HPLC-MS 547.2 $[M + H]^+$.

EXAMPLE 104. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



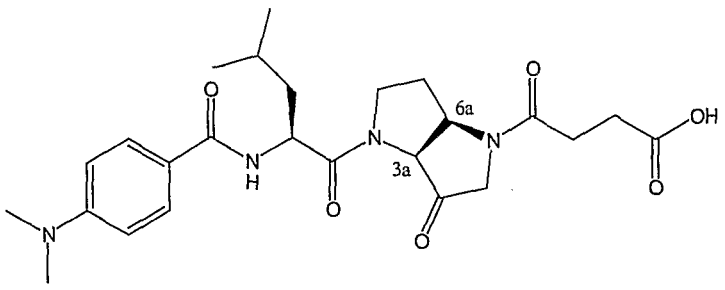
HPLC Rt = 12.9-13.9 mins (> 90%), HPLC-MS 497.2 $[M + H]^+$, 515.2 $[M + H + H_2O]^+$.

EXAMPLE 105. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



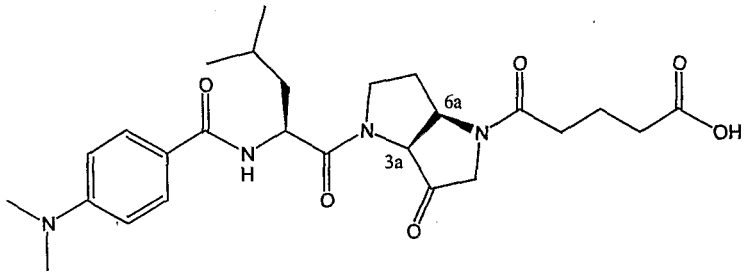
HPLC Rt = 13.08 mins (> 90%), HPLC-MS 485.2 $[M + H]^+$, 503.2 $[M + H + H_2O]^+$, 991.4 $[2M + Na]^+$,

EXAMPLE 106. (3a*S*, 6a*R*)-4-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-4-oxo-butyric acid



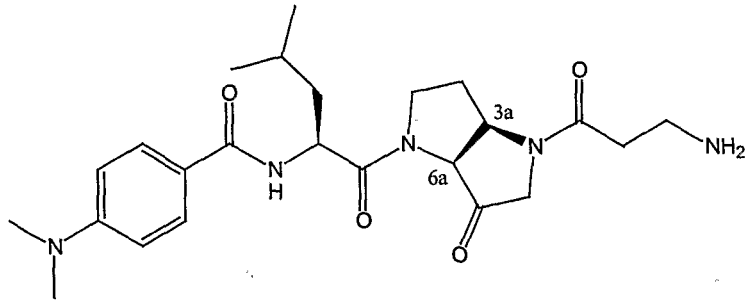
HPLC Rt = 4.35 mins (> 90%), HPLC-MS 487.2 $[M + H]^+$.

EXAMPLE 107. (3a*S*, 6a*R*)-5-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-5-oxo-pentanoic acid



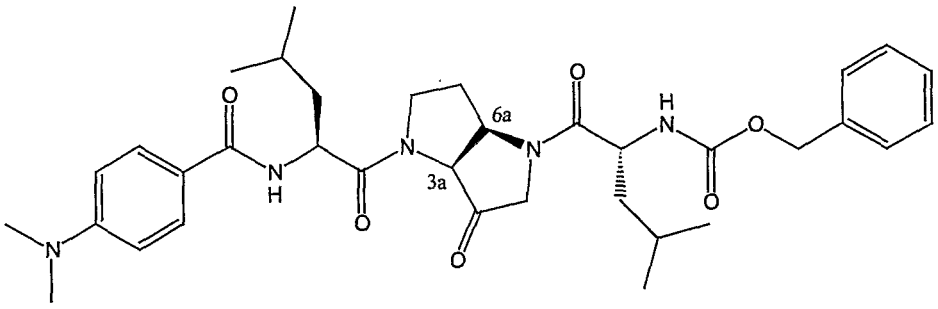
HPLC Rt = 4.99 mins (> 90%), HPLC-MS 501.2 $[M + H]^+$.

EXAMPLE 108. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Amino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



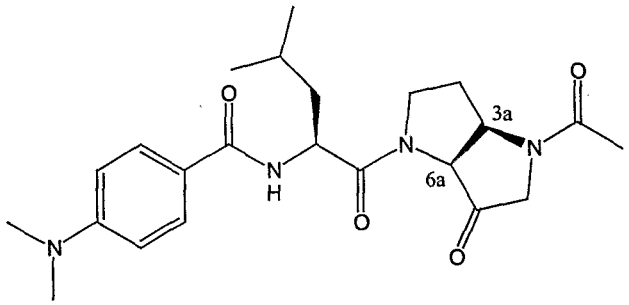
HPLC Rt = 3.9 mins (> 90%), HPLC-MS 458.2 $[M + H]^+$, 915.4 $[2M + H]^+$.

EXAMPLE 109. (3a*S*, 6a*R*)-((1*R*)-1-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-carbamic acid benzyl ester



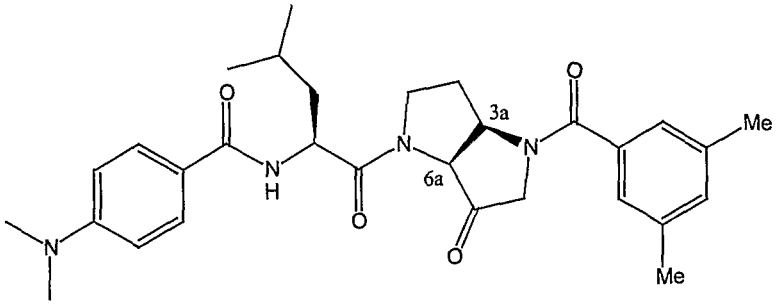
HPLC Rt = 13.0-14.2 mins (> 90%), HPLC-MS 634.3 $[M + H]^+$.

EXAMPLE 110. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Acetyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



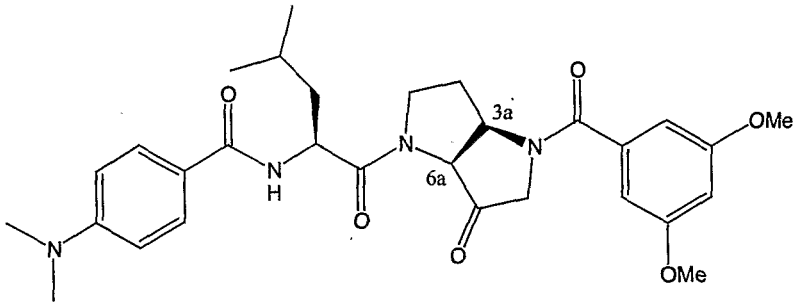
HPLC Rt = 4.58 mins (> 90%), HPLC-MS 429.2 $[M + H]^+$, 451.2 $[M + Na]^+$.

EXAMPLE 111. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3,5-dimethyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



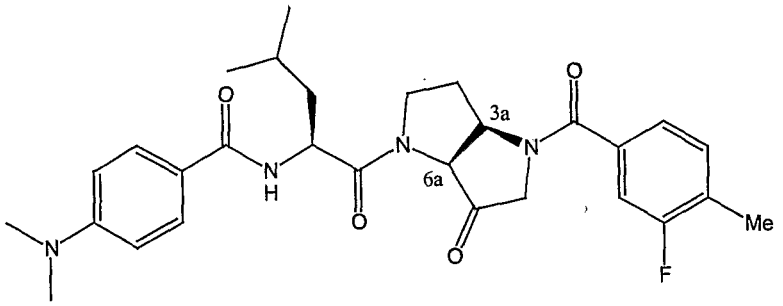
HPLC Rt = 15.53 mins (> 90%), HPLC-MS 519.3 $[M + H]^+$.

EXAMPLE 112. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3,5-Dimethoxy-benzoyl)-6-oxo-hexahydro pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



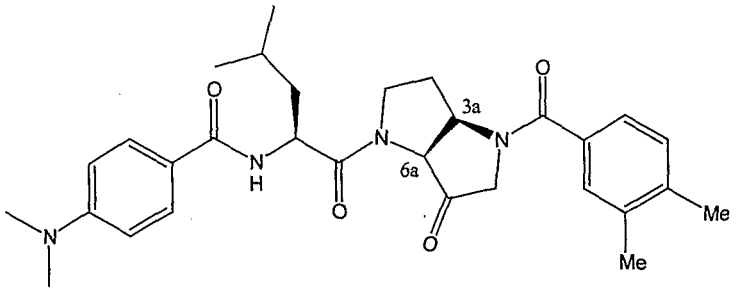
HPLC Rt = 14.43 mins (> 90%), HPLC-MS 551.2 $[M + H]^+$.

EXAMPLE 113. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3-fluoro-4-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



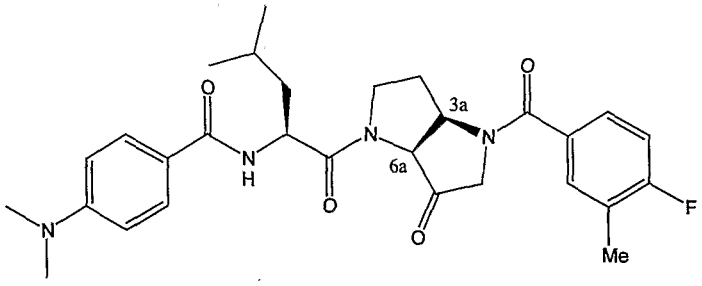
HPLC Rt = 15.04 mins (> 95%), HPLC-MS 523.2 $[M + H]^+$, 541.2 $[M + H + H_2O]^+$.

EXAMPLE 114. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3,4-dimethyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



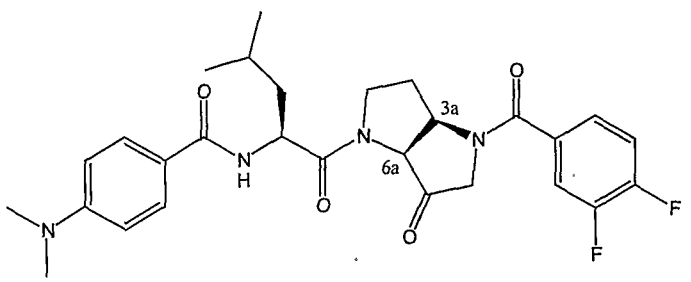
HPLC Rt = 15.70 mins (> 90%), HPLC-MS 519.3 $[M + H]^+$.

EXAMPLE 115. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(4-fluoro-3-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



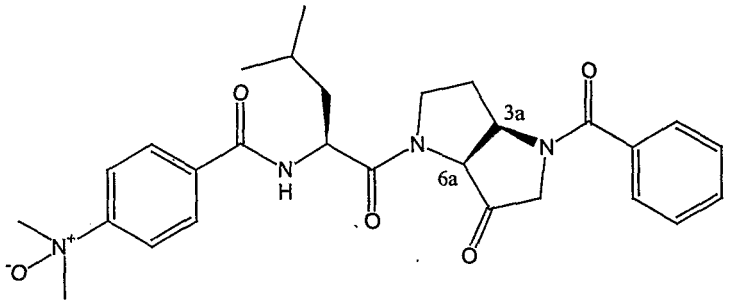
HPLC Rt = 15.00 mins (> 90%), HPLC-MS 523.2 $[M + H]^+$, 541.2 $[M + H + H_2O]^+$.

EXAMPLE 116. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3,4-Difluoro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



HPLC Rt = 14.47 mins (> 90%), HPLC-MS 527.2 $[M + H]^+$, 545.2 $[M + H + H_2O]^+$.

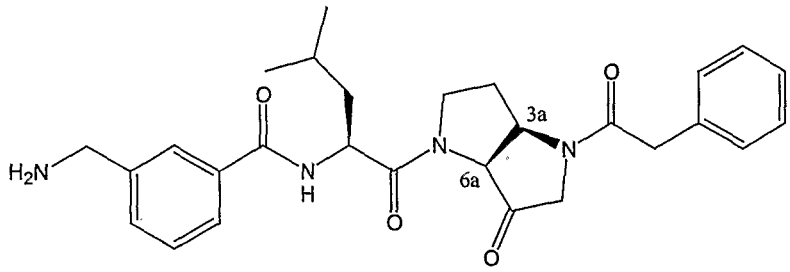
EXAMPLE 117. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-(*N*-oxy-dimethylamino)-benzamide



HPLC Rt = 11.64 mins (> 95%), HPLC-MS 507.2 $[M + H]^+$, 525.2 $[M + H + H_2O]^+$.

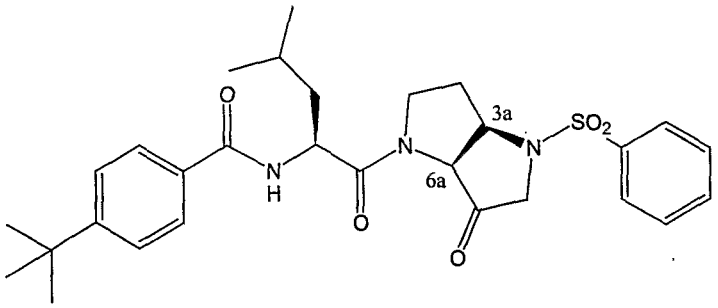
Oxidation of the intermediate was performed as detailed in the general soild phase methods prior to compound release from the solid phase.

EXAMPLE 118. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*S*)-3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide



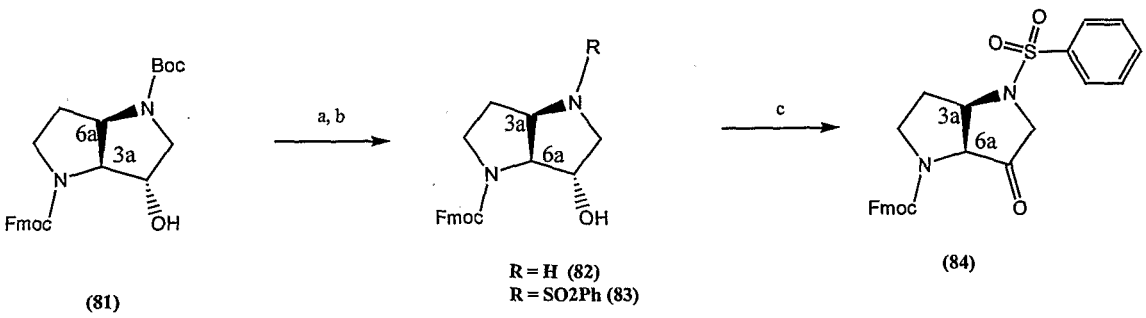
HPLC Rt = 12.06 mins (> 90%), HPLC-MS 491.2 $[M + H]^+$, 509.2 $[M + H + H_2O]^+$, 981.4 $[2M + H]^+$.

EXAMPLE 119. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butyl-benzamide



HPLC Rt = 21.0-22.4 mins (> 75%), HPLC-MS 540.1 $[M + H]^+$.

EXAMPLES 119-123 were prepared following the general methods detailed for EXAMPLE 1, but using an alternative building block (3a*R*, 6a*S*)-4-benzenesulfonyl-6-oxo-hexahydropyrrolo [3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester **(84)** prepared following Scheme 21.



Scheme 21. (a) 4N HCl in 1,4-dioxane, RT, 30mins, RT. (b) $PhSO_2Cl$, Et_3N, DCM. (c) Dess-Martin periodinane, DCM.

Preparation of (3a*R*, 6*S*, 6a*S*)-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester hydrochloride (82)

A solution of HCl in 1,4-dioxane (4.0M, 2.0 ml, 8 mmol) was added to (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-*tert*-butyl

ester 4-(9H-fluoren-9-ylmethyl) ester **(81)** (65 mg, 0.14 mmol). The mixture was stirred in a sealed system for 50 minutes then the solvents were removed *in vacuo* to leave a residue which was azeotroped with diethyl ether (3x 10 ml) to obtain (3a*R*, 6*S*, 6a*S*)-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester hydrochloride **(82)** as a white solid which was used without further purification (see below). HPLC-MS 351.1 $[M + H]^+$, 373.1 $[M + Na]^+$, 723.2 $[2M + Na]^+$; HRMS $C_{21}H_{23}N_2O_3Na$ req. 351.1708, fnd. 351.1712 (0.95ppm).

Preparation of (3a*R*, 6*S*, 6a*S*)-4-benzenesulfonyl-6-hydroxyhexahydropyrrolo [3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester (83)

Dichloromethane (1.5 ml), benzenesulfonyl chloride (20 µl, 0.16 mmol) then triethylamine (44 µl, 0.32 mmol) were added consecutively whilst stirring to (3a*R*, 6*S*, 6a*S*)-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester hydrochloride **(82)** (prepared as above, 0.14 mmol) under an atmosphere of argon. The mixture was stirred for 1 hour then the product extracted into ethyl acetate (40 ml), washed with aqueous saturated sodium hydrogen carbonate (40 ml), pH 3 hydrochloric acid (40 ml) and brine (40 ml) then dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 30 : 70 to give (3a*R*, 6*S*, 6a*S*)-4-benzenesulfonyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester **(83)** as a white solid (60 mg, 86%). TLC (Single spot, R_f = 0.40, EtOAc : heptane 1 : 1), analytical HPLC single main peak R_t = 20.112 min; HPLC-MS 491.0 $[M + H]^+$, 513.0 $[M + Na]^+$; Elemental analysis $C_{27}H_{26}N_2O_5S$ req.(fnd.) % C 66.10 (66.02), % H 5.34 (5.36), % N 5.71 (5.61); HRMS $C_{27}H_{26}N_2O_5SNa$ req. 513.1460, fnd. 513.1489 (5.56ppm).

Preparation of (3a*R*, 6a*S*)-4-benzenesulfonyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester (84)

Dess-Martin periodinane (95 mg, 0.22 mmol) was added in portions to a stirred solution of (3a*R*, 6*S*, 6a*S*)-4-benzenesulfonyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-yl methyl ester **(83)** (55 mg, 0.11 mmol) in dichloromethane (1.5 ml) under an atmosphere of argon over 2 minutes. The mixture was stirred for 3.25 hours then the solvents removed *in vacuo* to obtain a residue which was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 25 : 75 to give (3a*R*, 6a*S*)-4-benzenesulfonyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester **(84)** as a white solid (44 mg, 82%). TLC (Single spot, R_f = 0.55, EtOAc : heptane 65 : 35), analytical HPLC broad peak R_t = 20.0-21.5 min; HPLC-MS single broad main UV peak, 489.0 $[M + H]^+$, 511.0 $[M + Na]^+$, 529.0 $[M + H_2O + Na]^+$, 999.0 $[2M + Na]^+$; $C_{27}H_{24}N_2O_5S.0.4CDCl_3$ req.(fnd.) % C 61.36 (61.09), % H 4.51 (4.76), % N 5.22 (4.79); HRMS $C_{27}H_{24}N_2O_5SNa$ req. 511.1304, fnd. 511.1615 (2.16ppm); d_H (500 MHz, $CDCl_3$) mixture of rotamers 2.10-2.28 (2H, m, $PhSO_2NCHCH_2$), 3.40-3.60 (2H, m, $FmocNCH_2$), 3.62-3.84 (2H, m, $PhSO_2NCH_2$), 4.16-4.46 (4H, m, FmocNC*H*, Fmoc-C*H* and Fmoc-CH_2), 4.48-4.61 (1H, m, $PhSO_2NCH$), 7.32-7.90 (13H, m, aromatic); d_C (125 MHz, $CDCl_3$) 31.72, 31.86 ($PhSO_2NCH\underline{C}H_2$), 45.41 ($FmocN\underline{C}H_2$), 47.15 (Fmoc-$\underline{C}$H), 52.62 ($PhSO_2N\underline{C}H_2$), 60.17 ($PhSO_2N\underline{C}H$), 63.30, 63.52 (FmocN$\underline{C}$H), 67.79, 68.12 (Fmoc-$\underline{C}H_2$), 119.97, 120.09, 124.94, 127.07, 127.53, 127.74, 127.91, 129.65, 133.75 (aromatic $\underline{C}$H), 141.29, 143.40, 143.58, 143.81, 144.12 (quaternary aromatic), 154.93 (N$\underline{C}$=O), 203.85, 204.07 ($\underline{C}$=O).

Following the general details from Scheme 6, the required bicycle building block (3a*R*, 6a*S*)-4-benzenesulfonyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester **(84)** was converted to building block-linker construct **(27)** (where Pg_2 is phenylsulphonyl) as follows:

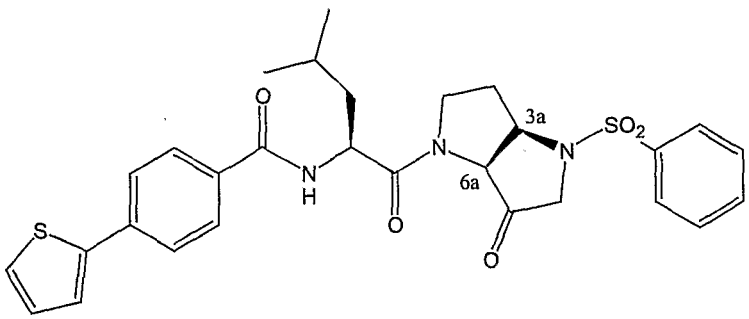
A solution of sodium acetate trihydrate (30 mg, 0.221 mmol) in water (0.3 ml) was added to a solution of (3a*R*, 6a*S*)-4-benzenesulfonyl-6-oxo-hexahydropyrrolo [3,2-*b*]pyrrole-1-carboxylic acid 9H-fluoren-9-ylmethyl ester **(84)** (36 mg, 0.074mmol) and 4-

[[(hydrazinocarbonyl)amino]methyl]cyclohexane carboxylic acid. trifluoroacetate (Murphy, A. M., *et al*, J. Am. Chem. Soc, 114, 3156-3157, **1992**) (49 mg, 0.148 mmol) in ethanol (2.1 ml). The reaction heated at 75 °C in a sealed tube for 4.5 hour. The product was extracted into chloroform (50 ml) then washed with hydrochloric acid (0.1M, 2 x 25 ml), saturated aqueous sodium chloride solution (30 ml) then dried (Na_2SO_4) and the solvent removed *in vacuo* to leave the product as a white solid (46 mg, 91%). Analytical HPLC has main UV peaks with Rt = 19.624 and 21.252mins and HPLC-MS (main UV peaks each with 686.3 $[M+H]^+$).

Following the general details from Scheme 6, the required building block-linker construct **(27)** was attached to the solid phase providing loaded building block-linker construct **(28)** following standard loading protocols and indicated quantitative loading.

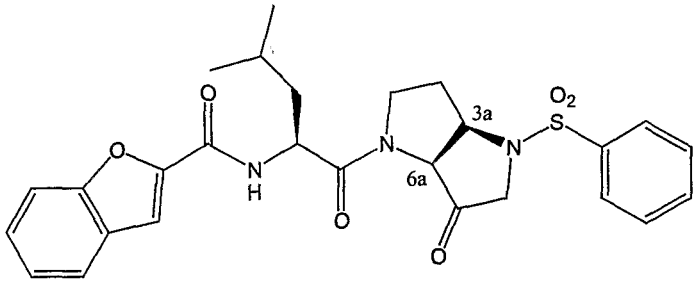
EXAMPLES 120 to 123 were prepared as detailed for EXAMPLE 119, substituting the appropriate carboxylic acids as required;

EXAMPLE 120. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzenesulfonyl-6-oxo-hexahydropyrrolo [3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide



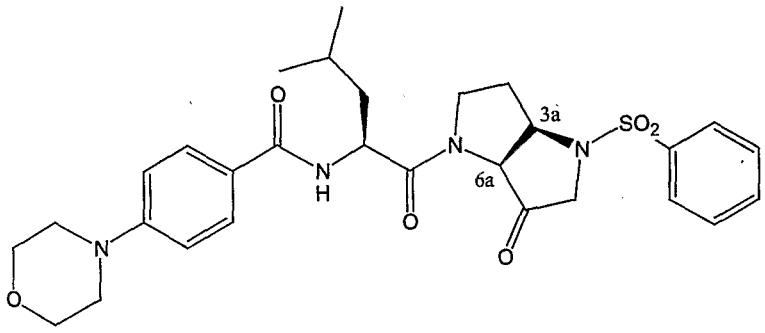
HPLC Rt = 20.3-21.7 mins (>75 %), HPLC-MS 566.1 $[M + H]^+$.

EXAMPLE 121. (3a*R*, 6a*S*)-Benzofuran-2-carboxylic acid [(1*S*)-1-(4-benzene sulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide



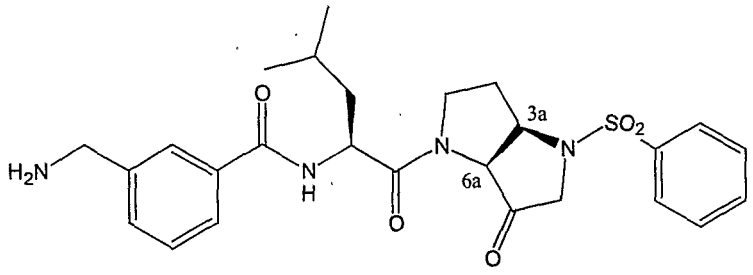
HPLC Rt = 18.3-19.9 mins (> 95%), HPLC-MS 524.1 $[M + H]^+$, 546.2 $[M + Na]^+$.

EXAMPLE 122. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzenesulfonyl-6-oxo-hexahydropyrrolo [3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide



HPLC Rt = 16.4-17.8 mins (> 90%), HPLC-MS 569.1 $[M + H]^+$, 587.1 $[M + H + H_2O]^+$.

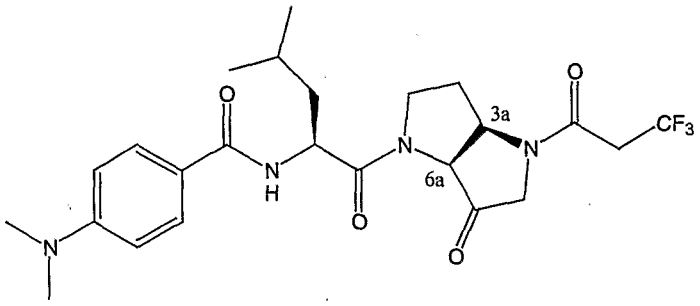
EXAMPLE 123. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*S*)-1-(4-benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



HPLC Rt = 13.0-14.1 mins (> 90%), HPLC-MS 513.1 $[M + H]^+$, 531.1 $[M + H + H_2O]^+$.

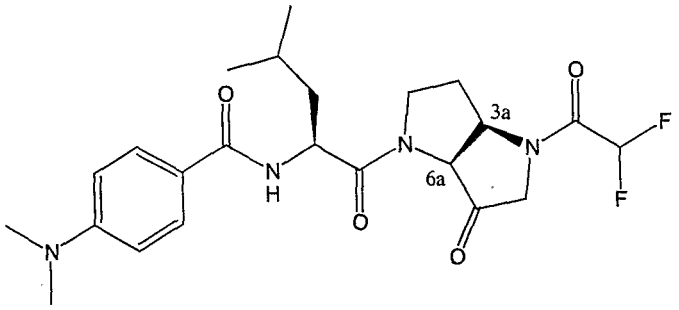
The following examples were prepared as detailed for EXAMPLE 1, substituting the appropriate carboxylic acids as required;

EXAMPLE 124. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(3,3,3-trifluoro-propionyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



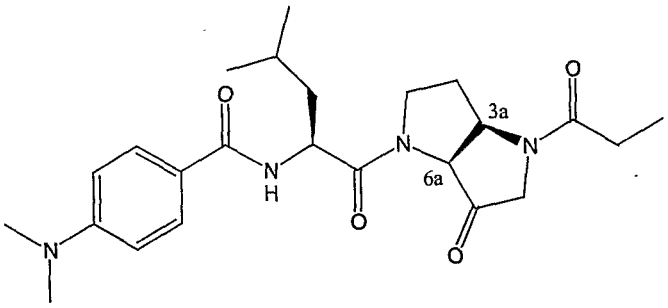
HPLC Rt = 10.46 mins (> 95%), HPLC-MS 497.2 $[M + H]^+$, 515.2 $[M + H + H_2O]^+$.

EXAMPLE 125. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2,2-Difluoro-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



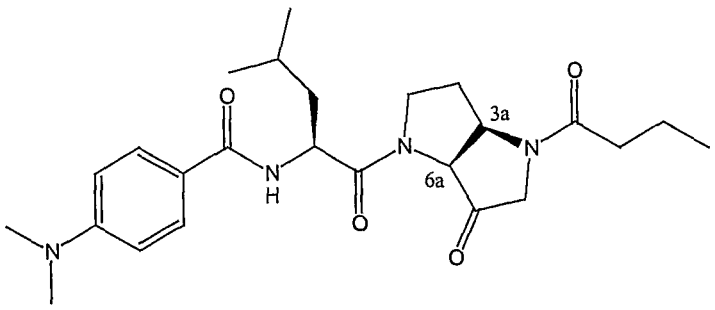
HPLC Rt = 9.31 mins (> 60%), HPLC-MS 465.1 $[M + H]^+$, 483.1 $[M + H + H_2O]^+$.

EXAMPLE 126. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-3-methyl-1-(6-oxo-4-propionyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide



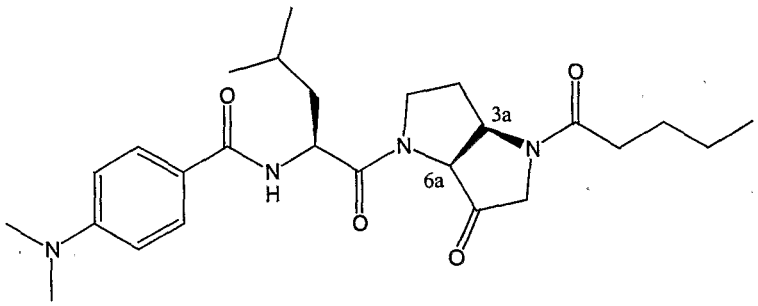
HPLC Rt = 9.90 mins (> 95%), HPLC-MS 443.2 $[M + H]^+$, 461.2 $[M + H + H_2O]^+$, 907.3 $[2M + Na]^+$.

EXAMPLE 127. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Butyryl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



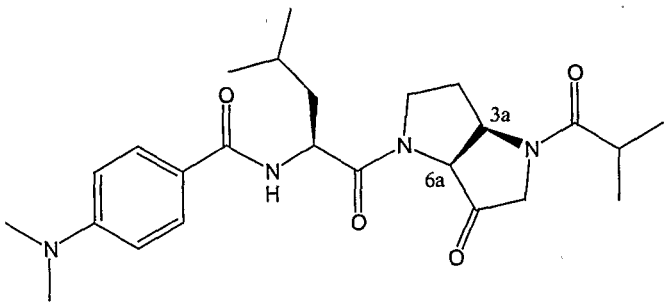
HPLC Rt = 10.95 mins (> 90%), HPLC-MS 457.2 $[M + H]^+$, 475.2 $[M + H + H_2O]^+$, 935.3 $[2M + Na]^+$.

EXAMPLE 128. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide



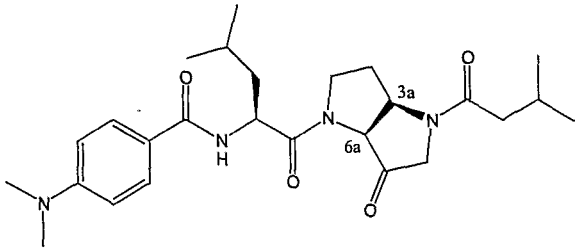
HPLC Rt = 12.0-13.1 mins (> 90%), HPLC-MS 471.2 $[M + H]^+$, 489.2 $[M + H + H_2O]^+$, 963.3 $[2M + Na]^+$.

EXAMPLE 129. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-1-(4-isobutyryl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



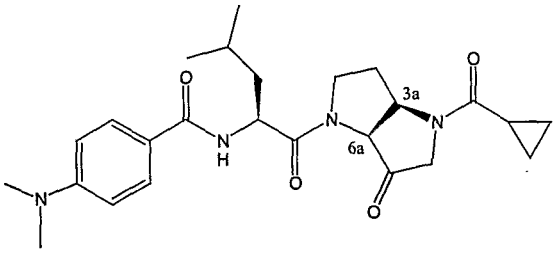
HPLC Rt = 10.55 mins (> 90%), HPLC-MS 457.2 $[M + H]^+$, 475.2 $[M + H + H_2O]^+$, 935.4 $[2M + Na]^+$.

EXAMPLE 130. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



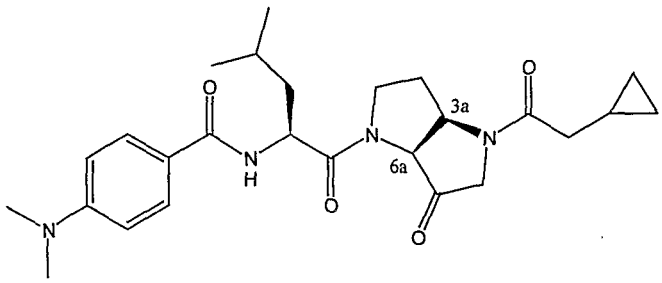
HPLC Rt = 11.81 mins (> 90%), HPLC-MS 471.2 $[M + H]^+$, 489.2 $[M + H + H_2O]^+$, 963.4 $[2M + Na]^+$.

EXAMPLE 131. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Cyclopropanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



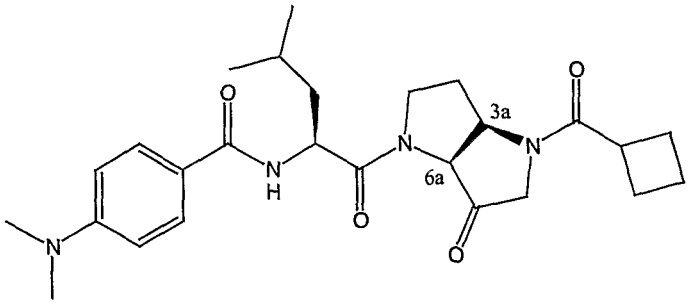
HPLC Rt = 10.10 mins (> 90%), HPLC-MS 455.2 $[M + H]^+$, 473.2 $[M + H + H_2O]^+$, 931.3 $[2M + Na]^+$.

EXAMPLE 132. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Cyclopropyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



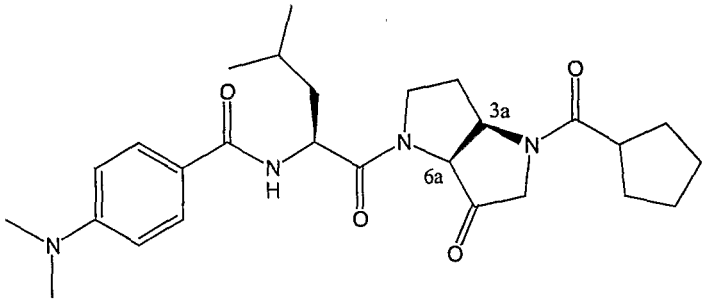
HPLC Rt = 11.13 mins (> 90%), HPLC-MS 469.2 $[M + H]^+$, 487.2 $[M + H + H_2O]^+$, 959.3 $[2M + Na]^+$.

EXAMPLE 133. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Cyclobutanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



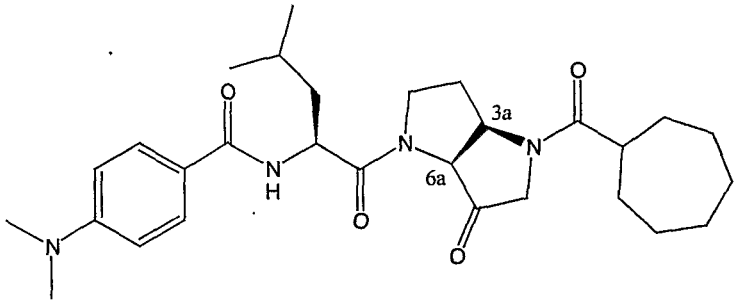
HPLC Rt = 11.41 mins (> 90%), HPLC-MS 469.2 $[M + H]^+$, 487.2 $[M + H + H_2O]^+$, 959.4 $[2M + Na]^+$.

EXAMPLE 134. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



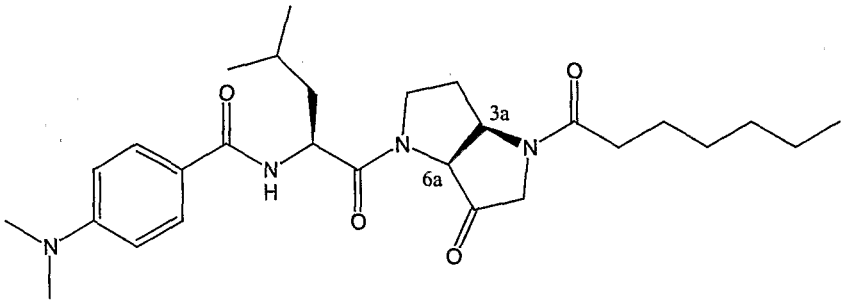
HPLC Rt = 12.2-13.1 mins (> 90%), HPLC-MS 483.2 $[M + H]^+$, 501.2 $[M + H + H_2O]^+$, 987.4 $[2M + Na]^+$.

EXAMPLE 135. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Cycloheptanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



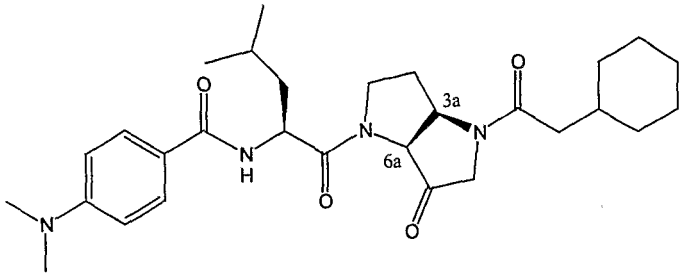
HPLC Rt = 14.0-14.9 mins (> 85%), HPLC-MS 511.2 $[M + H]^+$, 529.3 $[M + H + H_2O]^+$.

EXAMPLE 136. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-1-(4-heptanoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



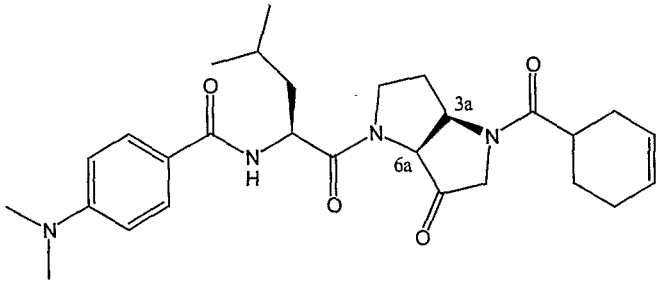
HPLC Rt = 14.3-15.2 mins (> 80%), HPLC-MS 499.2 $[M + H]^+$, 517.2 $[M + H + H_2O]^+$.

EXAMPLE 137. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



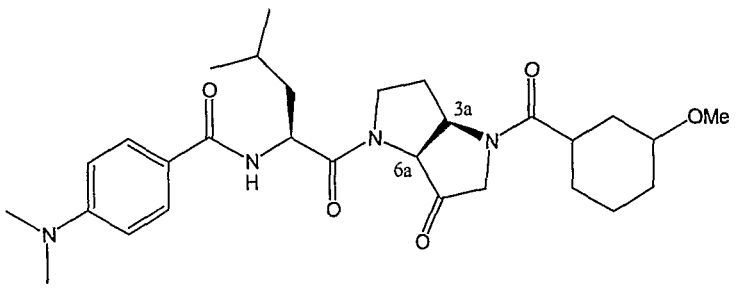
HPLC Rt = 14.27 mins (> 80%), HPLC-MS 511.2 $[M + H]^+$, 529.3 $[M + H + H_2O]^+$.

EXAMPLE 138. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Cyclohex-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



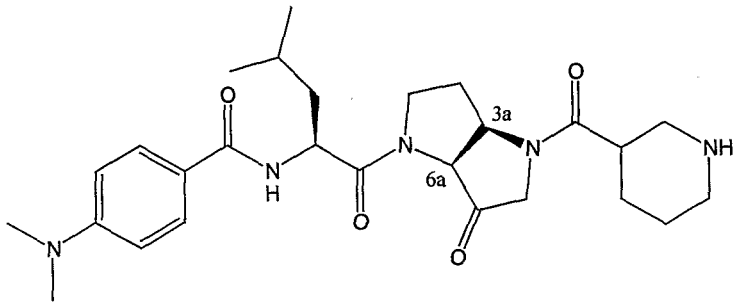
HPLC Rt = 12.2-13.3 mins (> 80%), HPLC-MS 495.2 $[M + H]^+$, 513.2 $[M + H + H_2O]^+$.

EXAMPLE 139. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(3-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



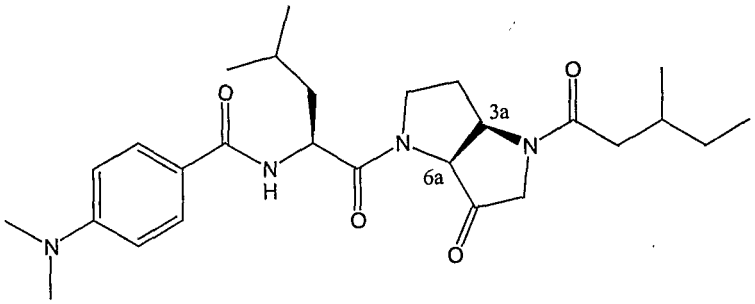
HPLC Rt = 11.1-12.8 mins (> 90%), HPLC-MS 527.2 $[M + H]^+$, 545.3 $[M + H + H_2O]^+$.

EXAMPLE 140. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(piperidine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



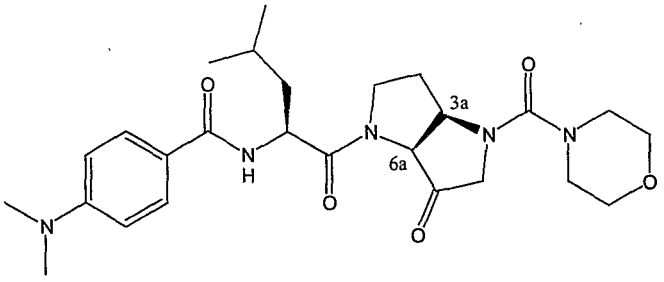
HPLC Rt = 7.8-9.3 mins (> 75%), HPLC-MS 498.2 $[M + H]^+$, 516.2 $[M + H + H_2O]^+$, 995.5 $[2M + H]^+$.

EXAMPLE 141. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



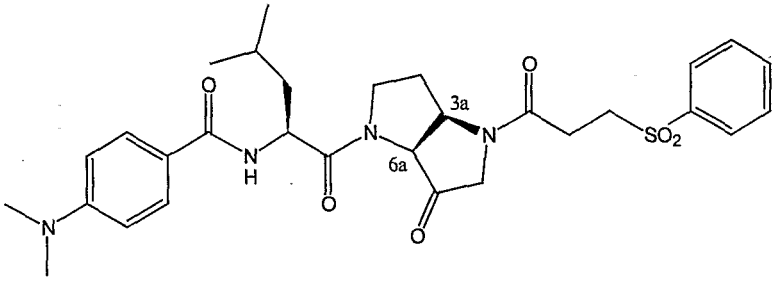
HPLC Rt = 12.9-13.8 mins (> 75%), HPLC-MS 485.2 $[M + H]^+$, 503.3 $[M + H + H_2O]^+$, 991.5 $[2M + Na]^+$.

EXAMPLE 142. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



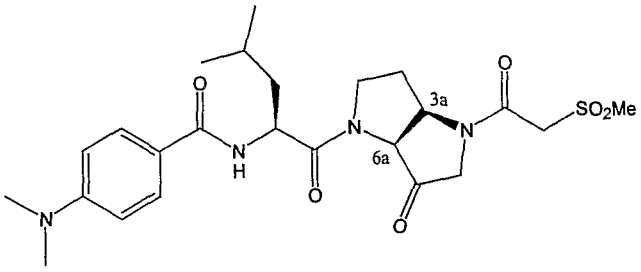
HPLC Rt = 9.82 mins (> 85%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 143. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Benzenesulfonyl-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



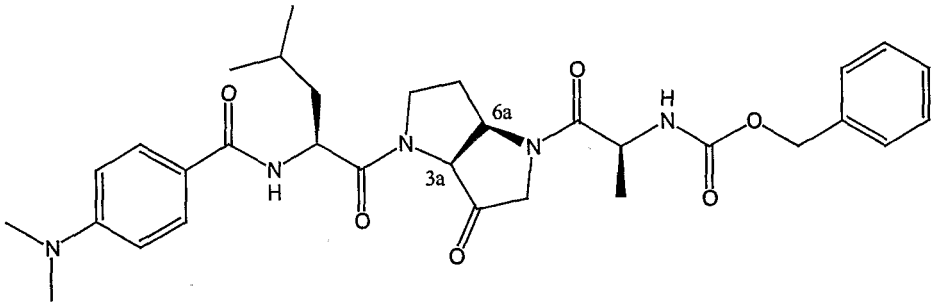
HPLC Rt = 12.27 mins (> 90%), HPLC-MS 583.2 $[M + H]^+$.

EXAMPLE 144. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-methanesulfonyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



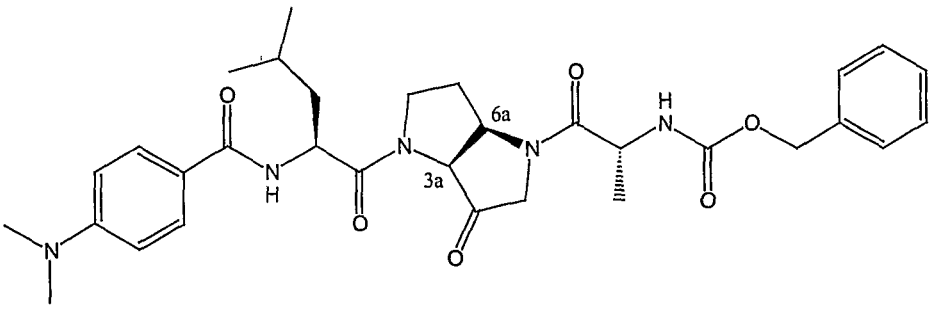
HPLC Rt = 8.00 mins (> 50%), HPLC-MS 507.1 $[M + H]^+$.

EXAMPLE 145. (3a*S*, 6a*R*)-((1*S*)-2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-1-methyl-2-oxo-ethyl)-carbamic acid benzyl ester



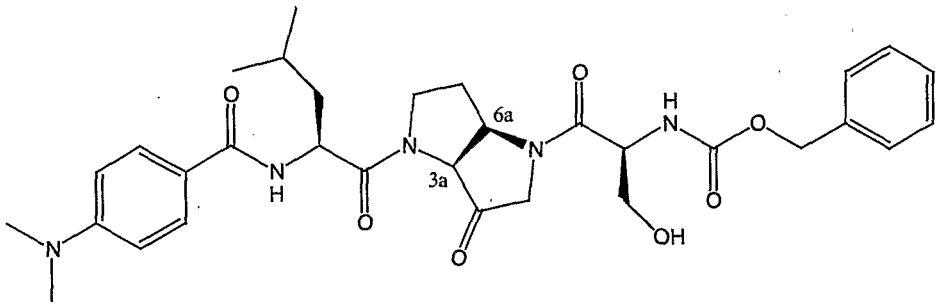
HPLC Rt = 12.4-14.0 mins (> 85%), HPLC-MS 592.2 $[M + H]^+$.

EXAMPLE 146. (3a*S*, 6a*R*)-((1*R*)-2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-1-methyl-2-oxo-ethyl)-carbamic acid benzyl ester



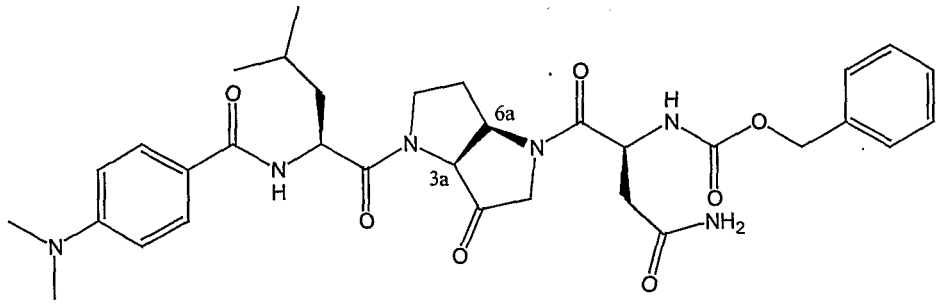
HPLC Rt = 12.5-13.9 mins (> 75%), HPLC-MS 592.2 $[M + H]^+$.

EXAMPLE 147. (3a*S*, 6a*R*)-((1*S*)-2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-1-hydroxymethyl-2-oxo-ethyl)-carbamic acid benzyl ester



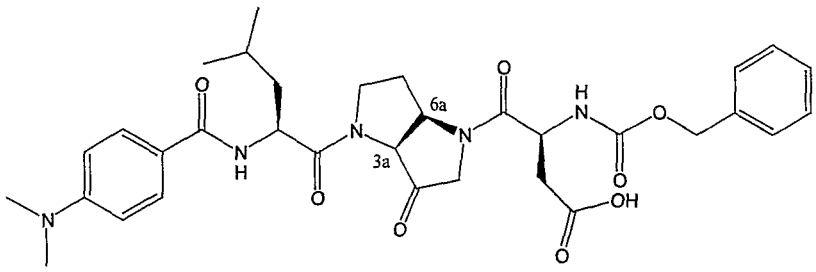
HPLC Rt = 11.8-13.3 mins (> 80%), HPLC-MS 608.3 $[M + H]^+$.

EXAMPLE 148. (3a*S*, 6a*R*)-((1*S*)-1-Carbamoylmethyl-2-{4-[(2*S*)-2-(4-dimethyl aminobenzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl}-2-oxo-ethyl)-carbamic acid benzyl ester



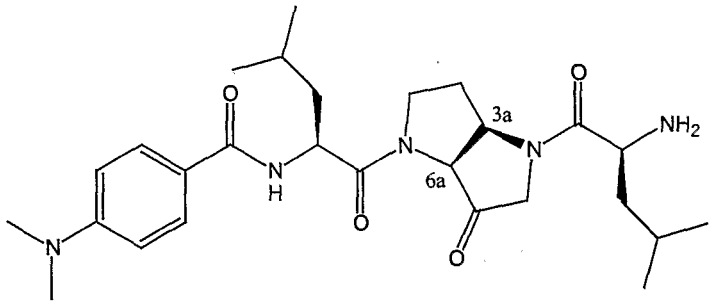
HPLC Rt = 11.4-13.2 mins (> 75%), HPLC-MS 635.2 $[M + H]^+$.

EXAMPLE 149. (3a*S*, 6a*R*)-(3*S*)-3-Benzyloxycarbonylamino-4-{4-[(2*S*)-2-(4-dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl}-4-oxo-butyric acid



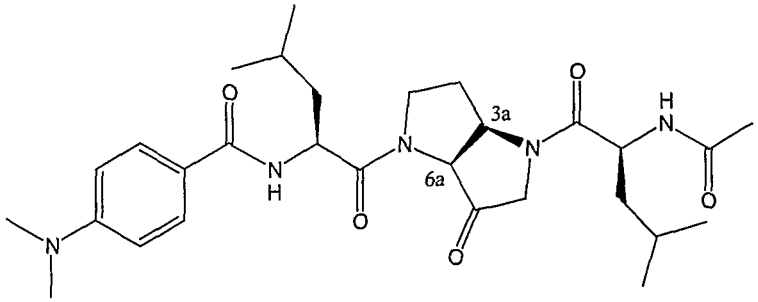
HPLC Rt = 12.1-13.5 mins (> 85%), HPLC-MS 636.2 $[M + H]^+$, 654.3 $[M + H + H_2O]^+$.

EXAMPLE 150. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



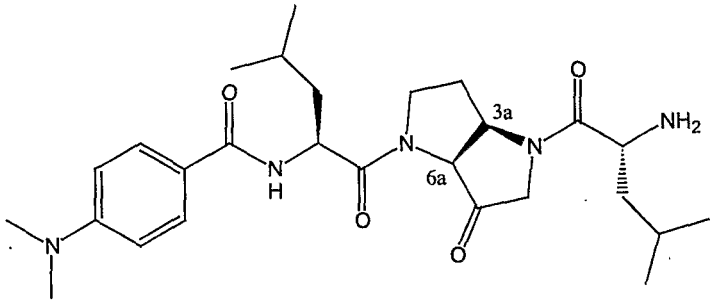
HPLC Rt = 11.00 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$, 999.5 $[2M + H]^+$.

EXAMPLE 151. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



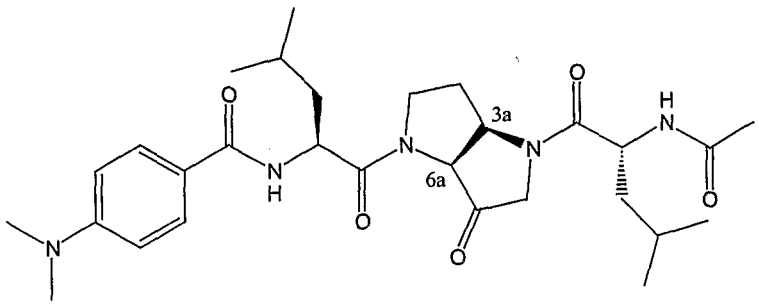
HPLC Rt = 11.5-13.0 mins (> 90%), HPLC-MS 542.2 $[M + H]^+$.

EXAMPLE 152. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*R*)-2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



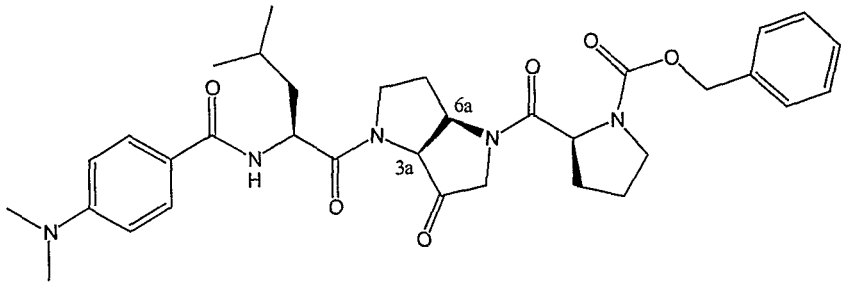
HPLC Rt = 8.9-10.8 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$, 999.5 $[2M + H]^+$.

EXAMPLE 153. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*R*)-2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



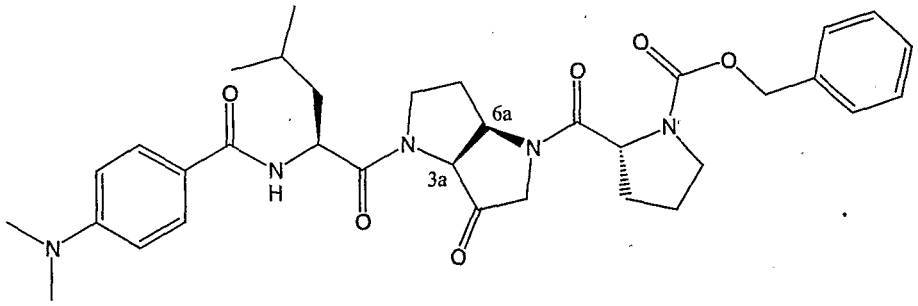
HPLC Rt = 10.4-12.2 mins (> 85%), HPLC-MS 542.3 $[M + H]^+$.

EXAMPLE 154. (3a*S*, 6a*R*)-(2*S*)-2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-pyrrolidine-1-carboxylic acid benzyl ester



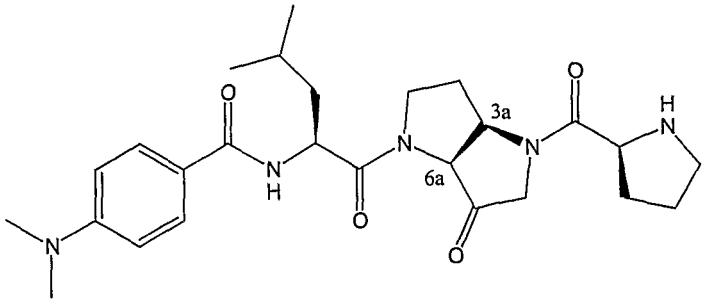
HPLC Rt = 13.2-14.3 mins (> 90%), HPLC-MS 618.2 $[M + H]^+$.

EXAMPLE 155. (3a*S*, 6a*R*)-(2*R*)-2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-pyrrolidine-1-carboxylic acid benzyl ester



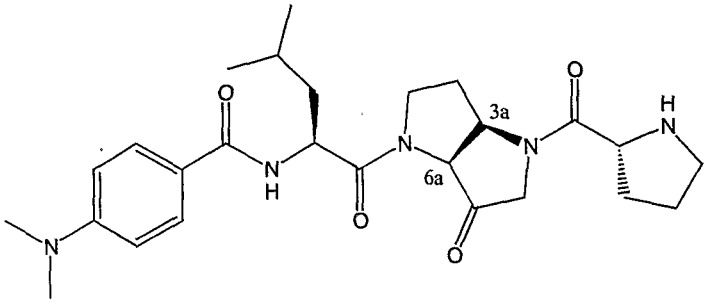
HPLC Rt = 13.2-14.2 mins (> 90%), HPLC-MS 618.2 $[M + H]^+$.

EXAMPLE 156. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-((2*S*)-pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



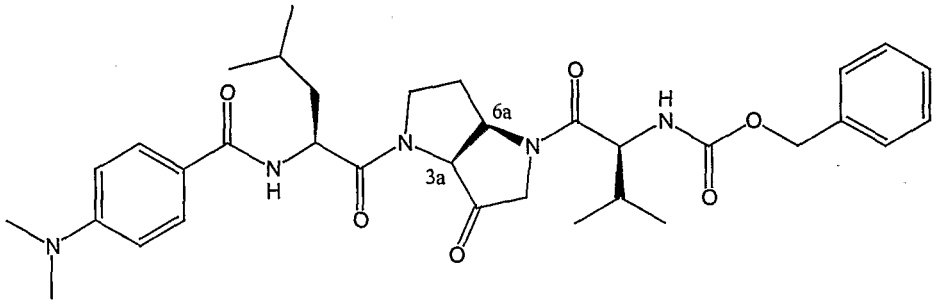
HPLC Rt = 8.82 mins (> 85%), HPLC-MS 484.2 $[M + H]^+$, 967.4 $[2M + H]^+$.

EXAMPLE 157. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-((2*R*)-pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



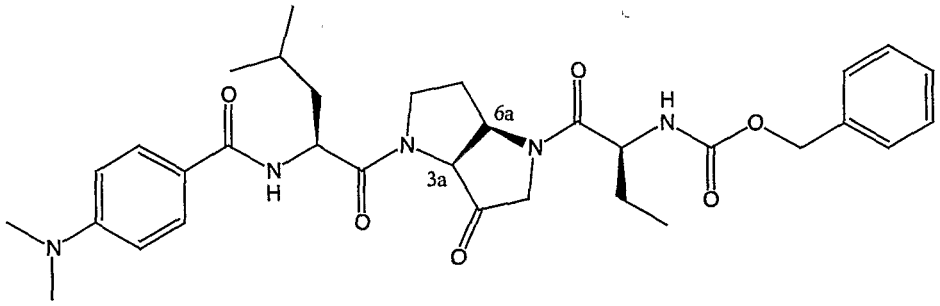
HPLC Rt = 7.3-9.1 mins (> 85%), HPLC-MS 484.2 $[M + H]^+$, 502.2 $[M + H + H_2O]^+$, 985.4 $[2M + H + H_2O]^+$.

EXAMPLE 158. (3a*S*, 6a*R*)-((1*S*)-1-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-2-methyl-propyl)-carbamic acid benzyl ester



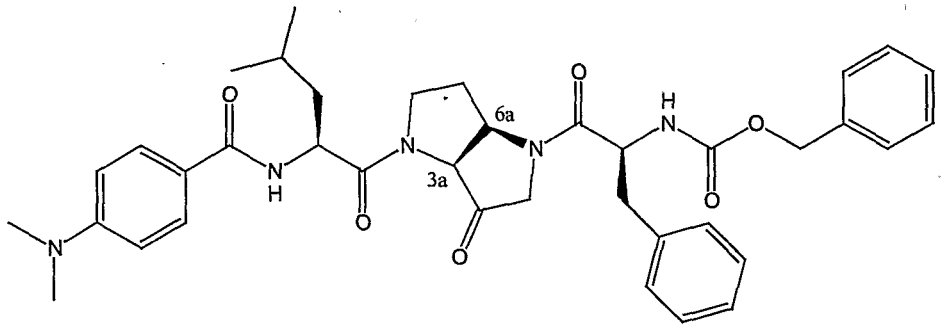
HPLC Rt = 15.18 mins (> 85%), HPLC-MS 620.3 $[M + H]^+$.

EXAMPLE 159. (3a*S*, 6a*R*)-((1*S*)-1-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-propyl)-carbamic acid benzyl ester



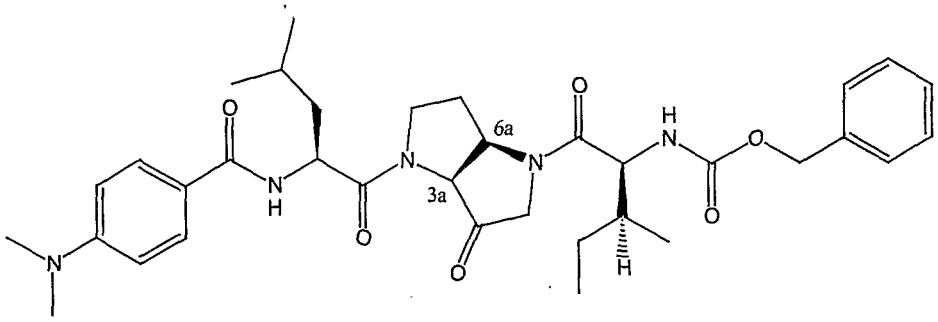
HPLC Rt = 14.22 mins (> 85%), HPLC-MS 606.2 $[M + H]^+$.

EXAMPLE 160. (3a*S*, 6a*R*)-((1*S*)-1-Benzyl-2-{4-[(2*S*)-2-(4-dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-2-oxo-ethyl)-carbamic acid benzyl ester



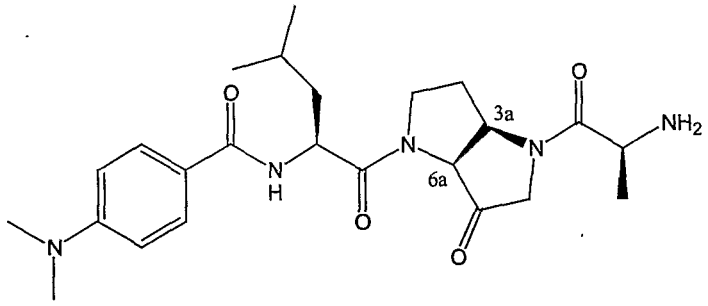
HPLC Rt = 16.23 mins (> 80%), HPLC-MS 668.2 $[M + H]^+$.

EXAMPLE 161. (3a*S*, 6a*R*)-((1*S*, 2*S*)-1-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-2-methyl-butyl)-carbamic acid benzyl ester



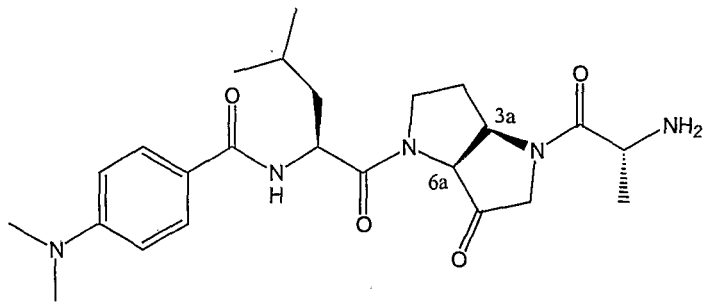
HPLC Rt = 16.17 mins (> 90%), HPLC-MS 634.3 $[M + H]^+$.

EXAMPLE 162. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



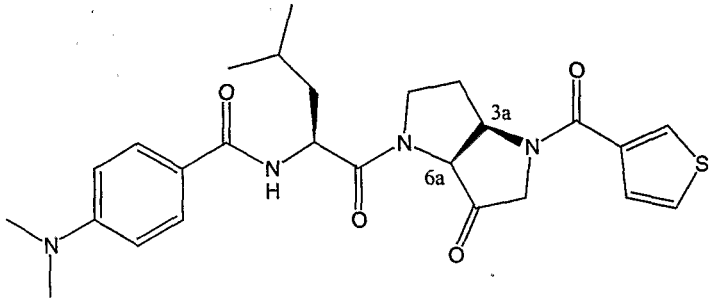
HPLC Rt = 8.01 mins (> 90%), HPLC-MS 458.2 $[M + H]^+$, 937.4 $[2M + Na]^+$.

EXAMPLE 163. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*R*)-2-Amino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



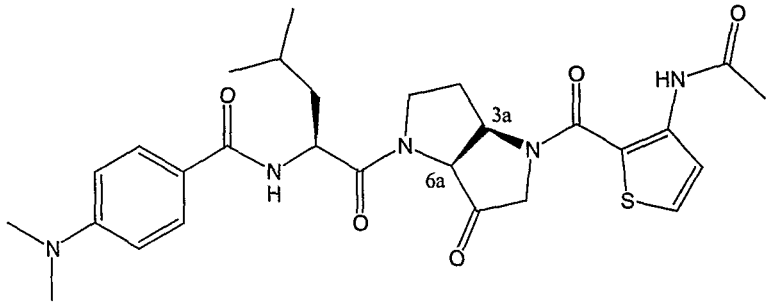
HPLC Rt = 6.9-8.3 mins (> 90%), HPLC-MS 458.2 $[M + H]^+$, 937.4 $[2M + Na]^+$.

EXAMPLE 164. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(thiophene-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



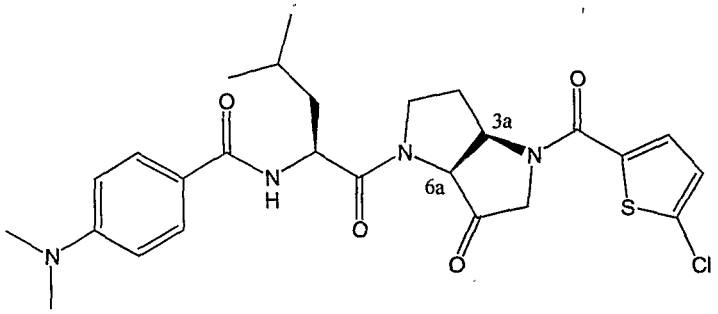
HPLC Rt = 11.0-12.0 mins (> 90%), HPLC-MS 497.2 $[M + H]^+$, 515.2 $[M + H + H_2O]^+$.

EXAMPLE 165. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Acetylamino-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



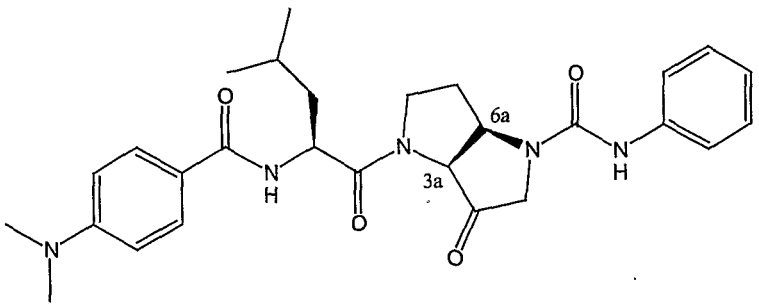
HPLC Rt = 10.94 mins (> 80%), HPLC-MS 554.2 $[M + H]^+$, 572.2 $[M + H + H_2O]^+$.

EXAMPLE 166. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(5-Chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



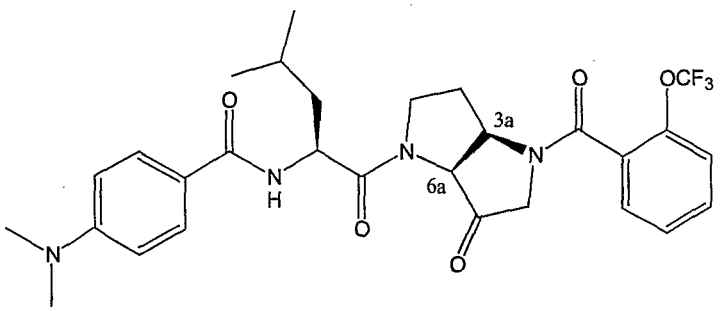
HPLC Rt = 13.83 mins (> 95%), HPLC-MS 531.1 / 533.1 $[M + H]^+$, 549.1 / 551.1 $[M + H + H_2O]^+$.

EXAMPLE 167. (3a*S*, 6a*R*)-4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide



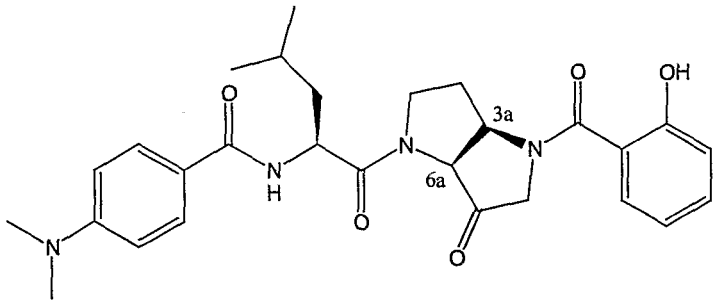
HPLC Rt = 11.4-12.1 mins (> 95%), HPLC-MS 506.2 $[M + H]^+$.

EXAMPLE 168. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-trifluoromethoxy-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



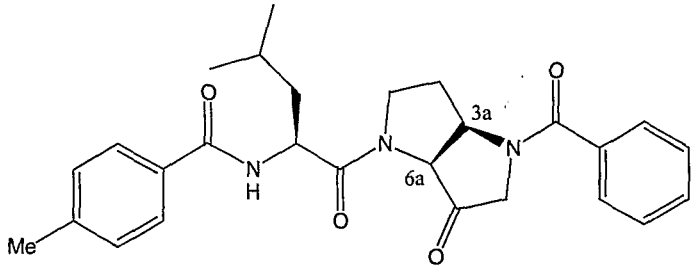
HPLC Rt = 14.42 mins (> 85%), HPLC-MS 575.2 $[M + H]^+$, 593.2 $[M + H + H_2O]^+$.

EXAMPLE 169. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-hydroxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



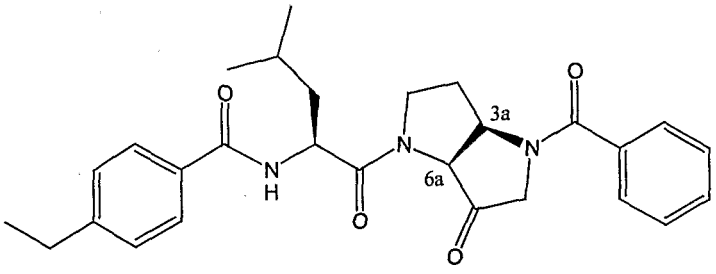
HPLC Rt = 7.77 mins (> 50%), HPLC-MS 507.2 $[M + H]^+$.

EXAMPLE 170. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-methyl-benzamide



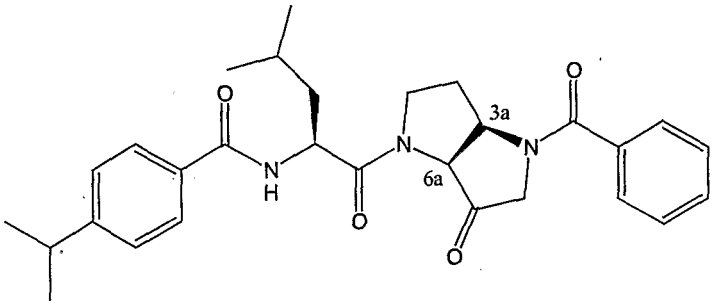
HPLC Rt = 14.35 mins (> 90%), HPLC-MS 462.2 $[M + H]^+$, 945.3 $[2M + Na]^+$.

EXAMPLE 171. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-ethyl-benzamide



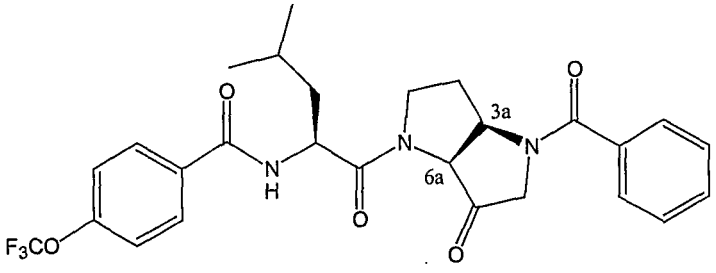
HPLC Rt = 15.40 mins (> 90%), HPLC-MS 476.2 $[M + H]^+$, 973.4 $[2M + Na]^+$.

EXAMPLE 172. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-isopropyl-benzamide



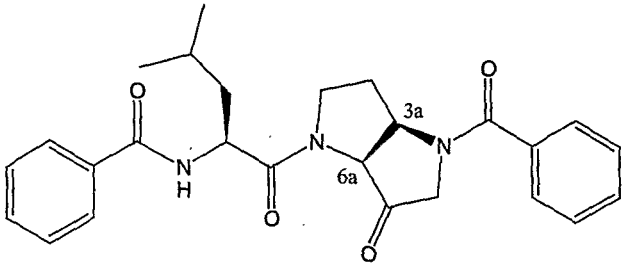
HPLC Rt = 16.41 mins (> 85%), HPLC-MS 490.2 $[M + H]^+$.

EXAMPLE 173. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-trifluoromethoxy-benzamide



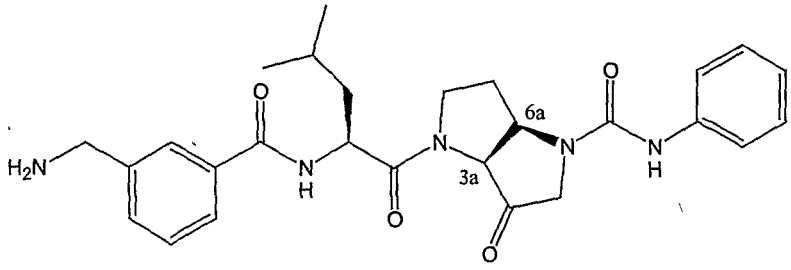
HPLC Rt = 16.44 mins (> 90%), HPLC-MS 532.1 $[M + H]^+$.

EXAMPLE 174. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



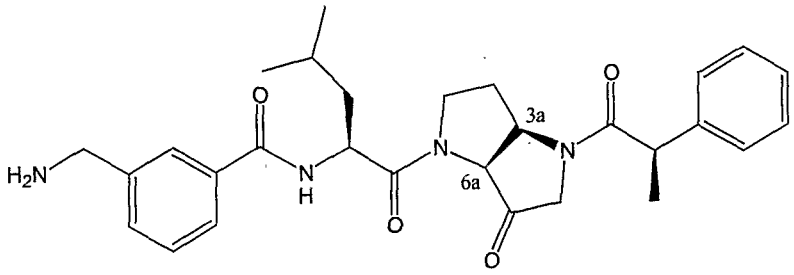
HPLC Rt = 13.30 mins (> 90%), HPLC-MS 448.2 $[M + H]^+$, 470.1 $[M + Na]^+$, 917.2 $[2M + Na]^+$.

EXAMPLE 175. (3a*S*, 6a*R*)-4-[(2*S*)-2-(3-Aminomethyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide



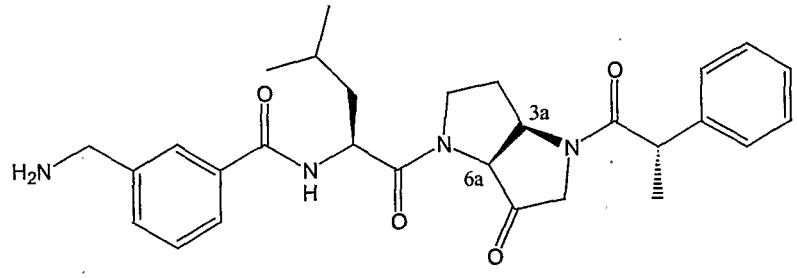
HPLC Rt = 10.69 mins (> 95%), HPLC-MS 492.2 $[M + H]^+$, 983.4 $[2M + H]^+$.

EXAMPLE 176. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-((2*R*)-2-phenyl-propionyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



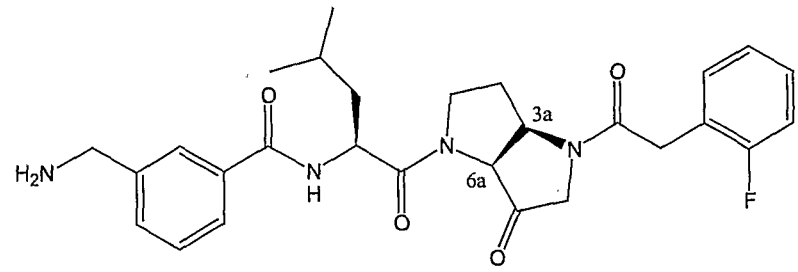
HPLC Rt = 12.2-13.8 mins (> 90%), HPLC-MS 505.2 $[M + H]^+$, 523.2 $[M + H + H_2O]^+$.

EXAMPLE 177. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-((2*S*)-2-phenyl-propionyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



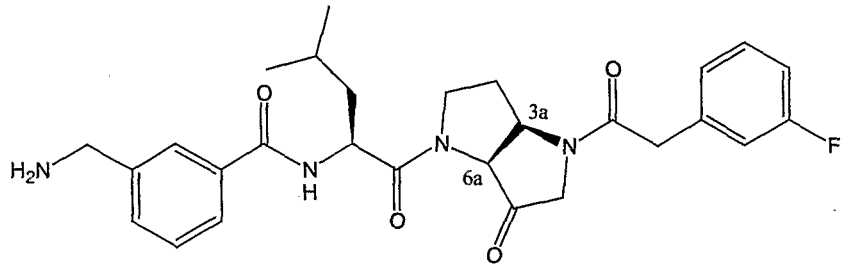
HPLC Rt = 11.9-13.5 mins (> 85%), HPLC-MS 505.2 $[M + H]^+$.

EXAMPLE 178. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-((1*S*)-1-{4-[2-(2-fluoro-phenyl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-benzamide



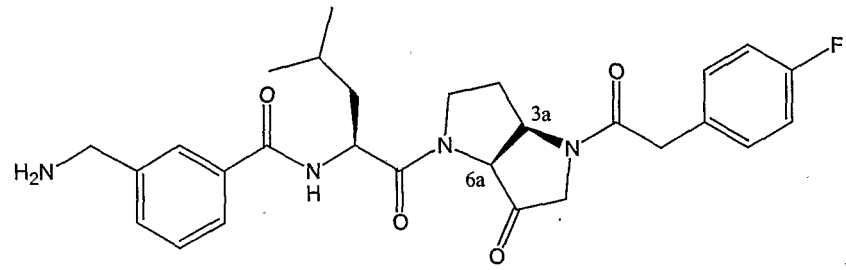
HPLC Rt = 11.65 mins (> 90%), HPLC-MS 509.2 $[M + H]^+$.

EXAMPLE 179. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-((1*S*)-1-{4-[2-(3-fluoro-phenyl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-benzamide



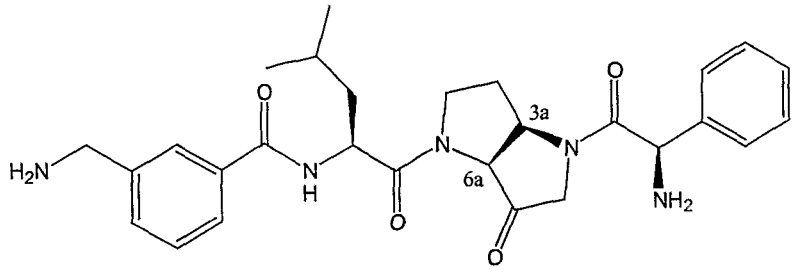
HPLC Rt = 11.70 mins (> 95%), HPLC-MS 509.2 $[M + H]^+$.

EXAMPLE 180. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-((1*S*)-1-{4-[2-(4-fluoro-phenyl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-benzamide



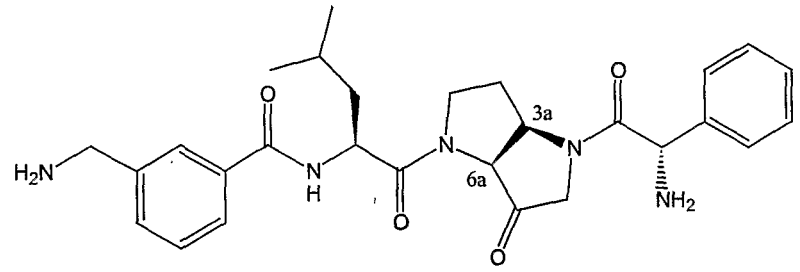
HPLC Rt = 11.74 mins (> 95%), HPLC-MS 509.2 $[M + H]^+$.

EXAMPLE 181. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-1-[4-((2*R*)-2-amino-2-phenyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



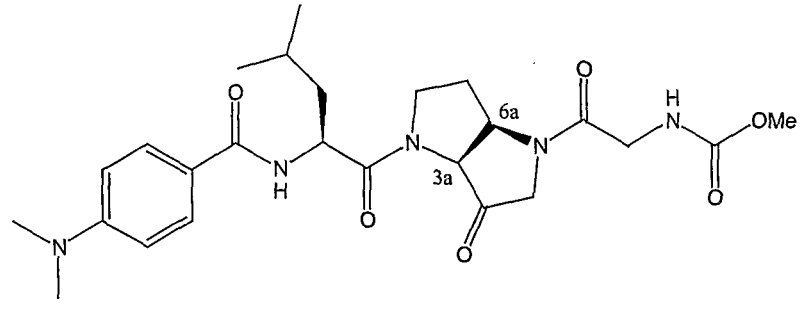
HPLC Rt = 8.93 mins (> 50%), HPLC-MS 506.2 $[M + H]^+$, 524.2 $[M + H + H_2O]^+$.

EXAMPLE 182. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-1-[4-((2*S*)-2-amino-2-phenyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



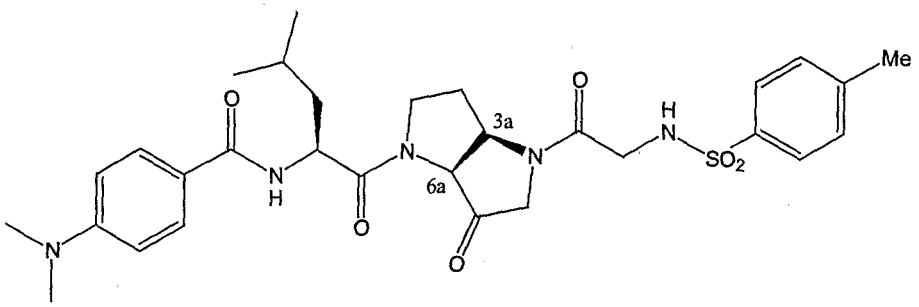
HPLC Rt = 7.2-9.3 mins (> 60%), HPLC-MS 506.2 $[M + H]^+$, 524.2 $[M + H + H_2O]^+$.

EXAMPLE 183. (3a*S*, 6a*R*)-(2-{4-[(2*S*)-2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl}-2-oxo-ethyl)-carbamic acid methyl ester



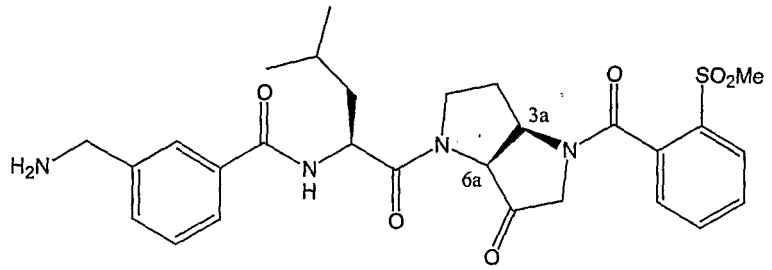
HPLC Rt = 7.96 mins (> 95%), HPLC-MS 502.2 $[M + H]^+$.

EXAMPLE 184. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-((1*S*)-3-methyl-1-{6-oxo-4-[2-(toluene-4-sulfonylamino)-acetyl]-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide



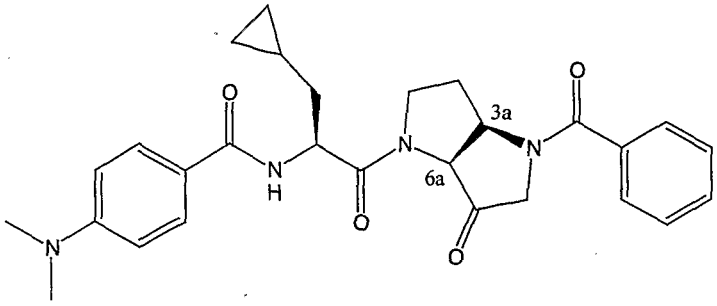
HPLC Rt = 13.40 mins (> 90%), HPLC-MS 598.2 $[M + H]^+$.

EXAMPLE 185. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-1-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



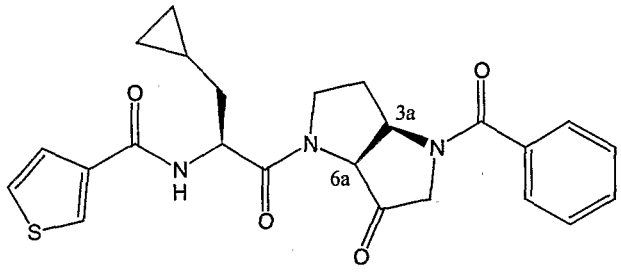
HPLC Rt = 9.4-10.4 mins (> 85%), HPLC-MS 555.2 $[M + H]^+$, 573.2 $[M + H + H_2O]^+$.

EXAMPLE 186. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-cyclopropylmethyl-2-oxo-ethyl]-4-dimethylamino-benzamide



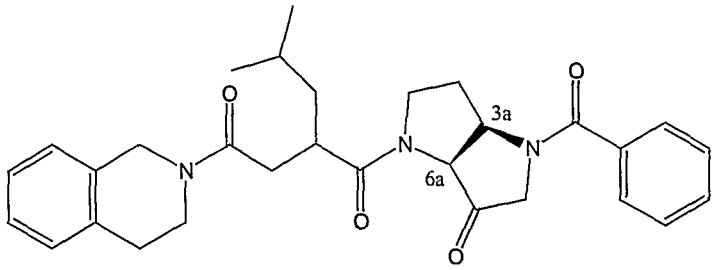
HPLC Rt = 11.0-13.0 mins (> 85%), HPLC-MS [489.2 M + H]$^+$, 507.2 [M + H + H_2O]$^+$.

EXAMPLE 187. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclopropylmethyl-2-oxo-ethyl]-amide



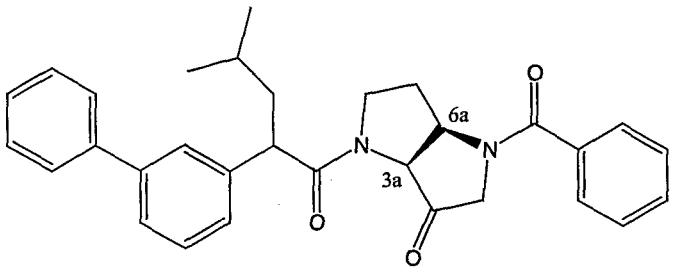
HPLC Rt = 12.10 mins (> 80%), HPLC-MS 452.1 [M + H]$^+$, 925.2 [2M + Na]$^+$.

EXAMPLE 188. (3a*R*, 6a*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-4-(3,4-dihydro-1*H*-isoquinolin-2-yl)-2-isobutyl-butane-1,4-dione



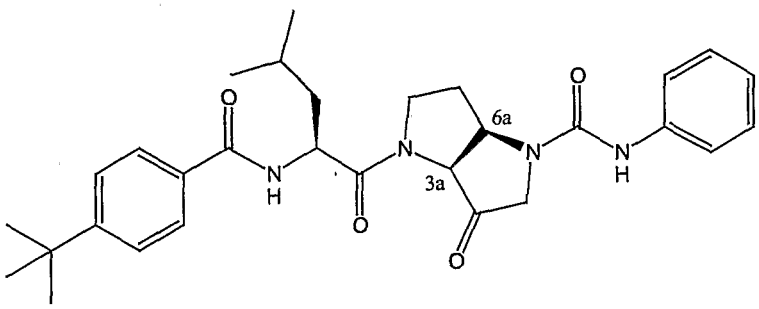
HPLC Rt = 15.1-16.5 mins (> 80%), HPLC-MS 502.1 $[M + H]^+$, 520.2 $[M + H + H_2O]^+$.

EXAMPLE 189. (3a*S*, 6a*R*)-1-Benzoyl-4-(2-biphenyl-3-yl-4-methyl-pentanoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one



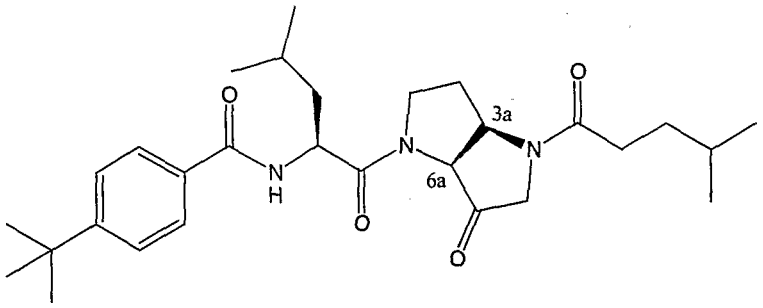
HPLC Rt = 18.1-20.1 mins (> 80%), HPLC-MS 481.2 $[M + H]^+$, 499.2 $[M + H + H_2O]^+$, 983.3 $[2M + Na]^+$.

EXAMPLE 190. (3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide



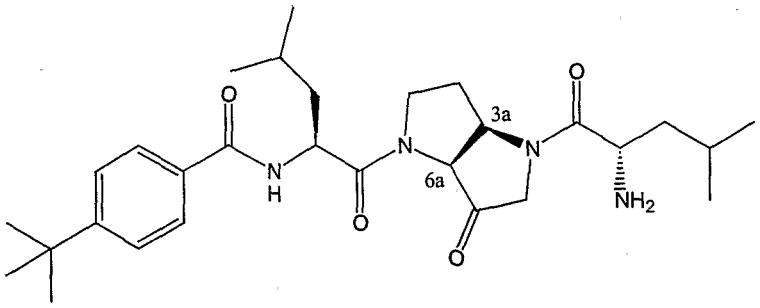
HPLC Rt = 16.9-18.4 mins (> 85%), HPLC-MS 519.2 $[M + H]^+$.

EXAMPLE 191. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



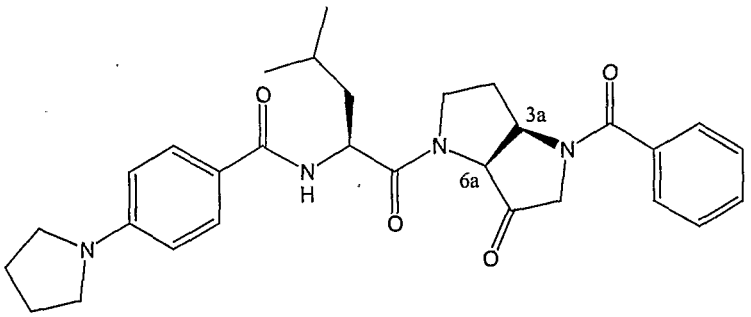
HPLC Rt = 16.3-17.5 mins (> 85%), HPLC-MS 498.2 $[M + H]^+$.

EXAMPLE 192. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



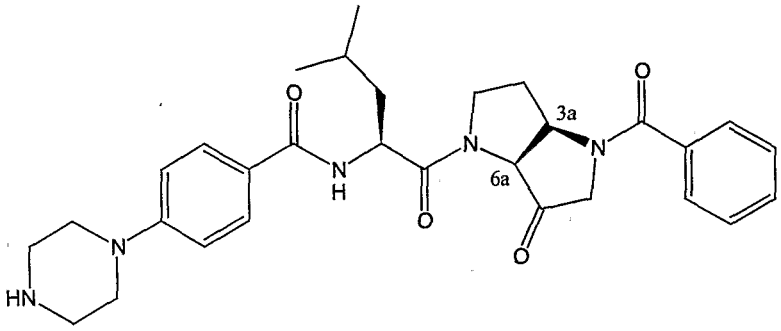
HPLC Rt = 16.19 mins (> 90%), HPLC-MS 513.3 $[M + H]^+$.

EXAMPLE 193. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide



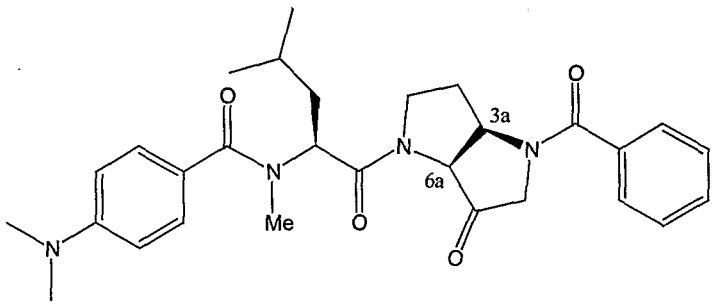
HPLC Rt = 17.45 mins (> 85%), HPLC-MS 517.1 $[M + H]^+$, 535.2 $[M + H + H_2O]^+$.

EXAMPLE 194. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide



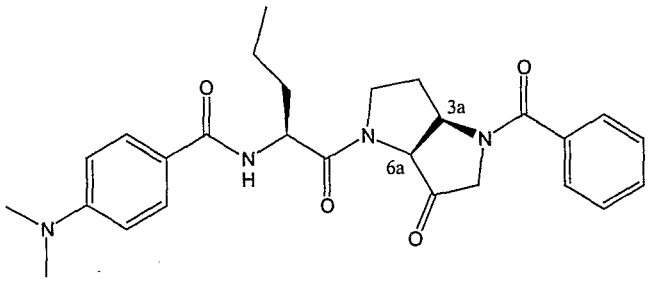
HPLC Rt = 11.50 mins (> 95%), HPLC-MS 532.1 $[M + H]^+$, 550.2 $[M + H + H_2O]^+$.

EXAMPLE 195. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-*N*-methyl-benzamide



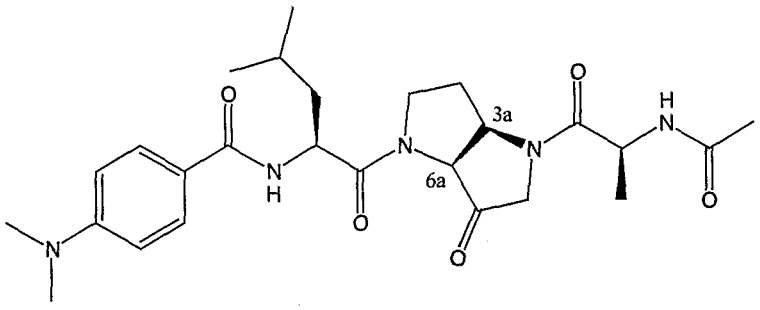
HPLC Rt = 18.29 mins (> 50%), HPLC-MS 505.1 $[M + H]^+$.

EXAMPLE 196. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-butyl]-4-dimethylamino-benzamide



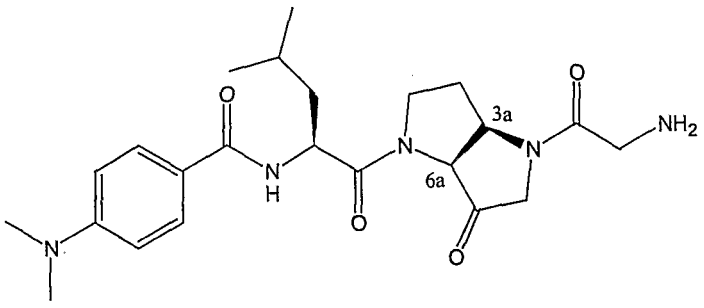
HPLC Rt = 11.09 mins (> 80%), HPLC-MS 477.1 $[M + H]^+$, 495.1 $[M + H + H_2O]^+$.

EXAMPLE 197. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



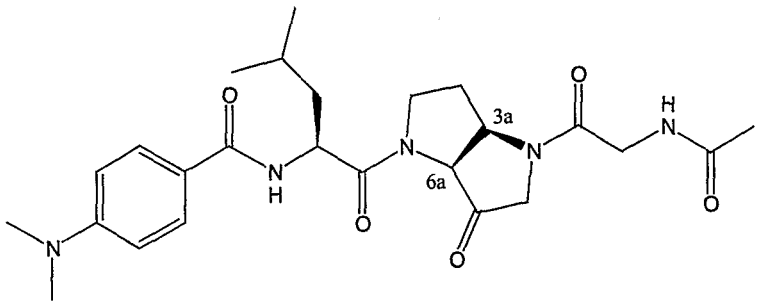
HPLC Rt = 9.06 mins (> 90%), HPLC-MS 500.1 $[M + H]^+$, 518.2 $[M + H + H_2O]^+$.

EXAMPLE 198. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Amino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



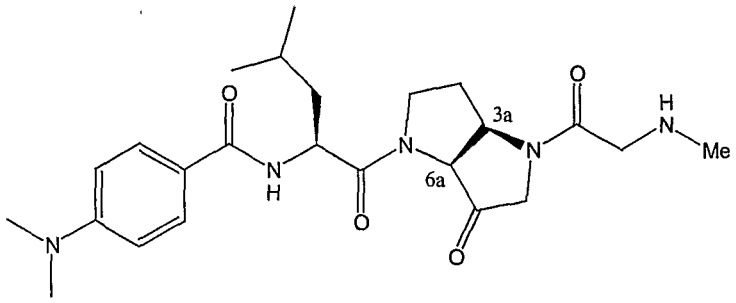
HPLC Rt = 7.93 mins (> 90%), HPLC-MS 444.1 $[M + H]^+$.

EXAMPLE 199. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



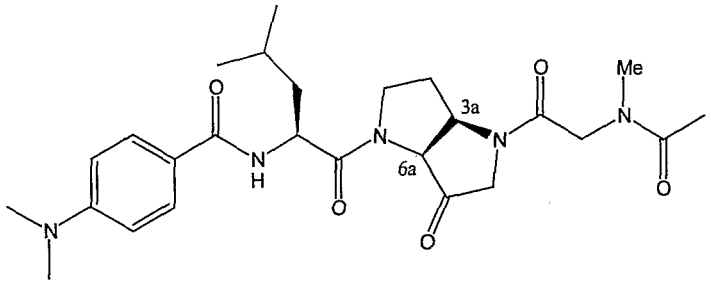
HPLC Rt = 8.1 mins (> 90%), HPLC-MS 486.1 $[M + H]^+$.

EXAMPLE 200. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(2-methylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



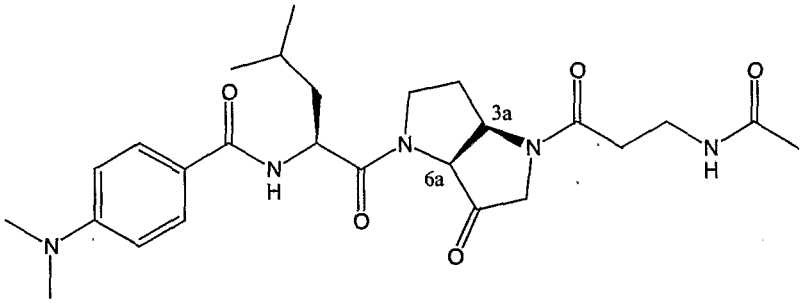
HPLC Rt = 7.89 mins (> 90%), HPLC-MS 458.2 $[M + H]^+$.

EXAMPLE 201. (3a*R*, 6a*S*)-*N*-((1*S*)-1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-dimethylamino-benzamide



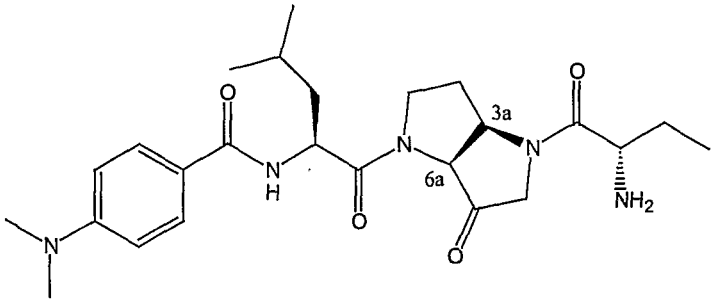
HPLC Rt = 8.89 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 202. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(3-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



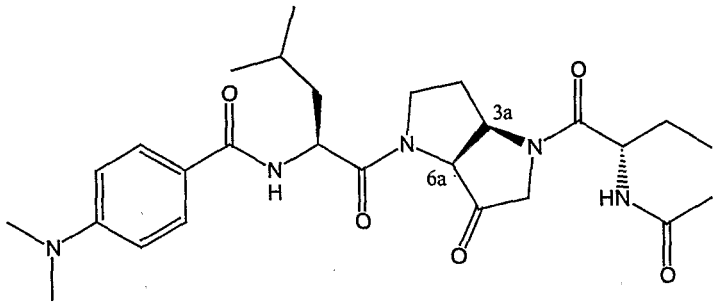
HPLC Rt = 8.57 mins (> 90%), HPLC-MS 500.1 $[M + H]^+$.

EXAMPLE 203. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



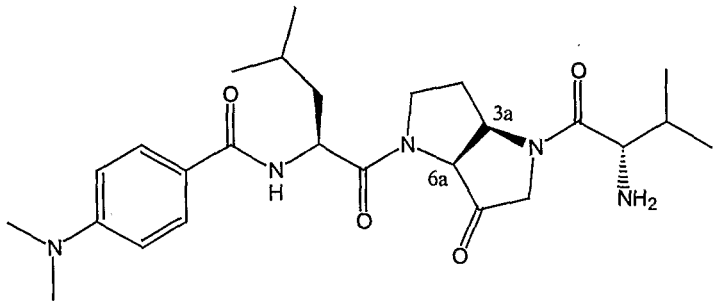
HPLC Rt = 9.29 mins (> 90%), HPLC-MS 472.2 $[M + H]^+$.

EXAMPLE 204. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



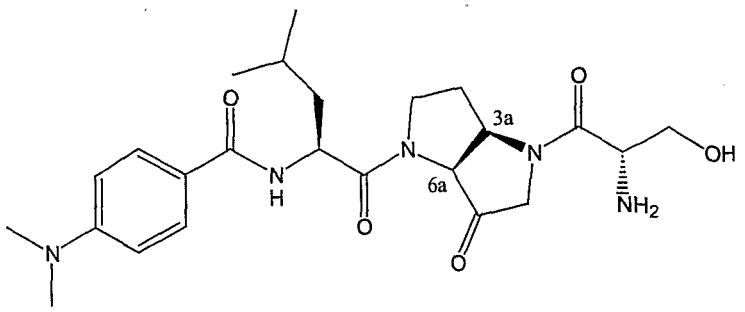
HPLC Rt = 10.45 mins (> 90%), HPLC-MS 514.2 $[M + H]^+$.

EXAMPLE 205. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



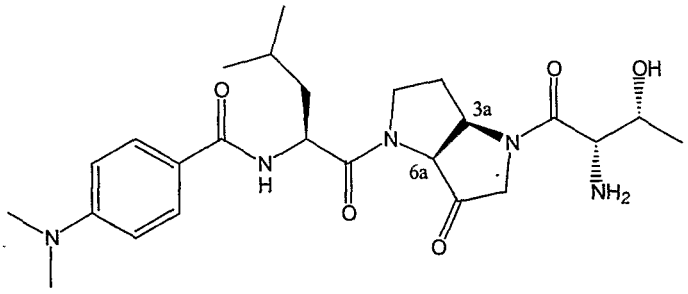
HPLC Rt = 9.92 mins (> 90%), HPLC-MS 486.2 $[M + H]^+$.

EXAMPLE 206. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-3-hydroxy-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



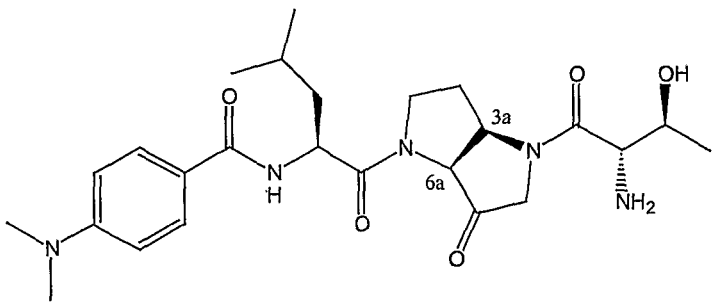
HPLC Rt = 7.56 mins (> 90%), HPLC-MS 474.1 $[M + H]^+$.

EXAMPLE 207. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*, 3*R*)-2-Amino-3-hydroxy-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



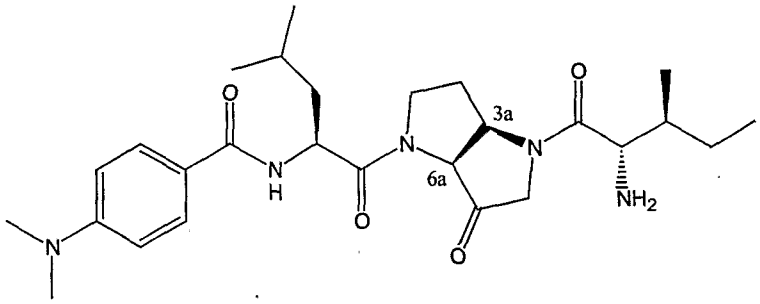
HPLC Rt = 8.00 mins (> 80%), HPLC-MS 488.1 $[M + H]^+$.

EXAMPLE 208. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*, 3*S*)-2-Amino-3-hydroxy-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



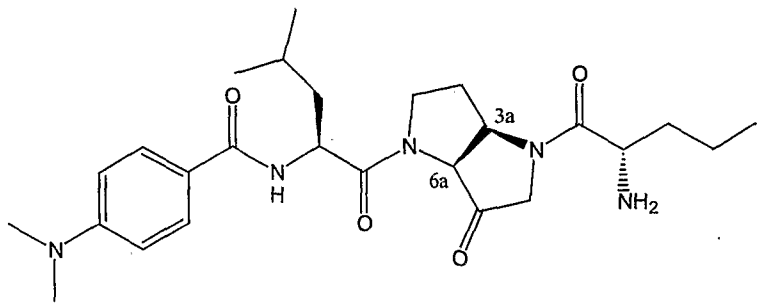
HPLC Rt = 8.13 mins (> 85%), HPLC-MS 488.1 $[M + H]^+$.

EXAMPLE 209. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*, 3*S*)-2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



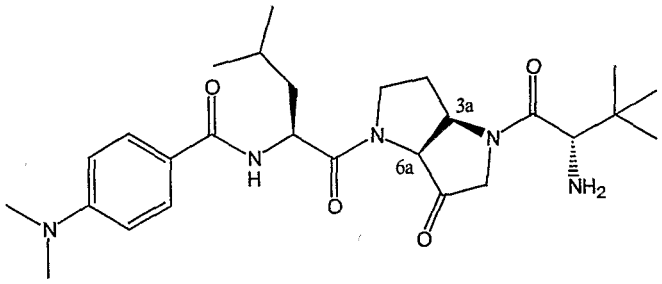
HPLC Rt = 10.97 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 210. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



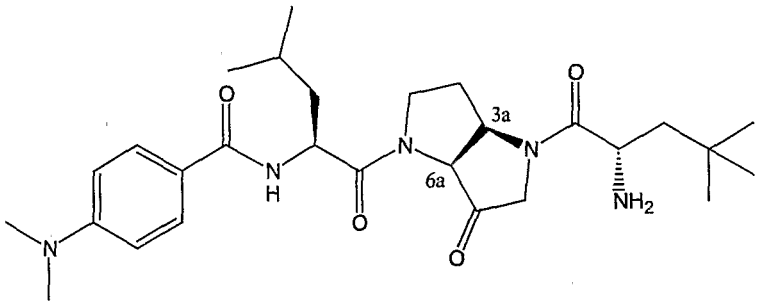
HPLC Rt = 10.32 mins (> 90%), HPLC-MS 486.2 $[M + H]^+$.

EXAMPLE 211. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



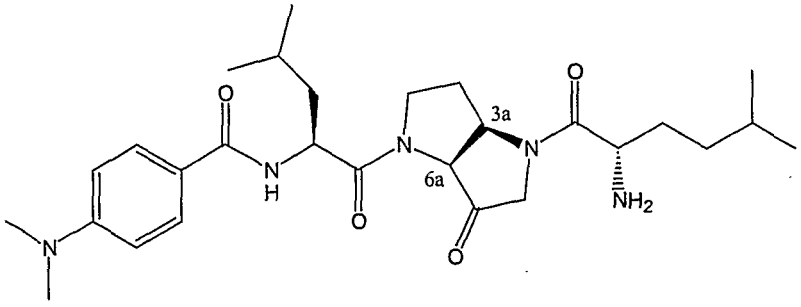
HPLC Rt = 11.14 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$.

EXAMPLE 212. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



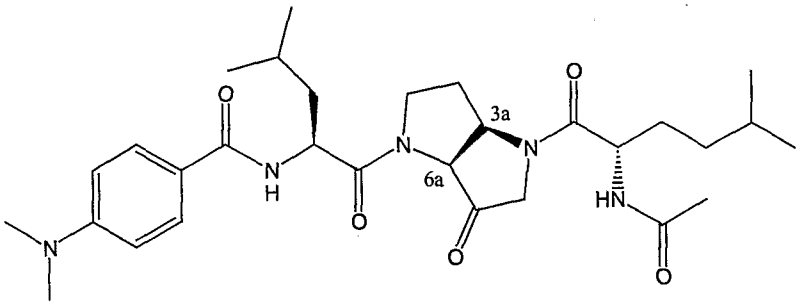
HPLC Rt = 12.01 mins (> 90%), HPLC-MS 514.2 $[M + H]^+$.

EXAMPLE 213. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



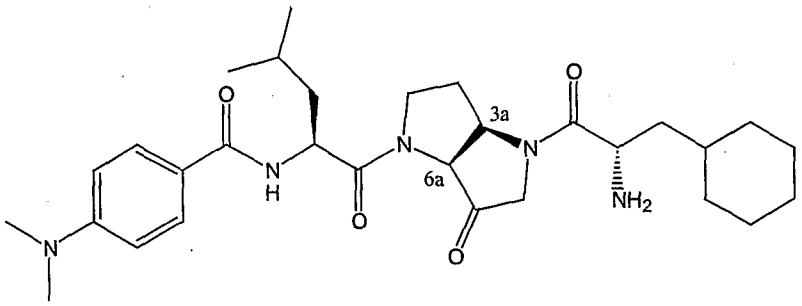
HPLC Rt = 12.83 mins (> 95%), HPLC-MS 514.2 $[M + H]^+$.

EXAMPLE 214. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



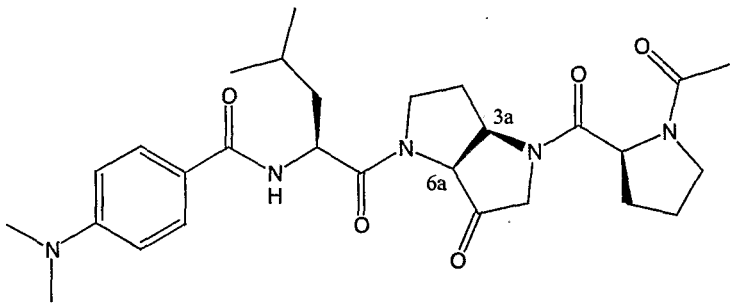
HPLC Rt = 14.18 mins (> 95%), HPLC-MS 556.2 $[M + H]^+$.

EXAMPLE 215. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-3-cyclohexyl-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



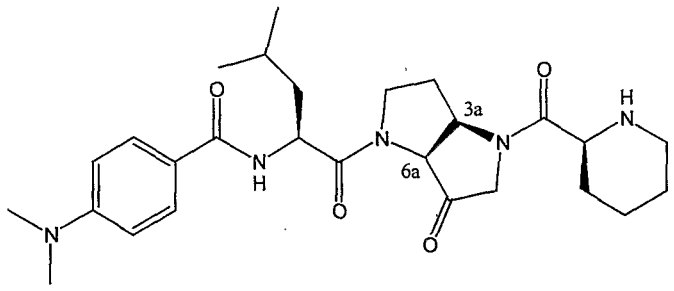
HPLC Rt = 13.54 mins (> 95%), HPLC-MS 540.2 $[M + H]^+$.

EXAMPLE 216. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



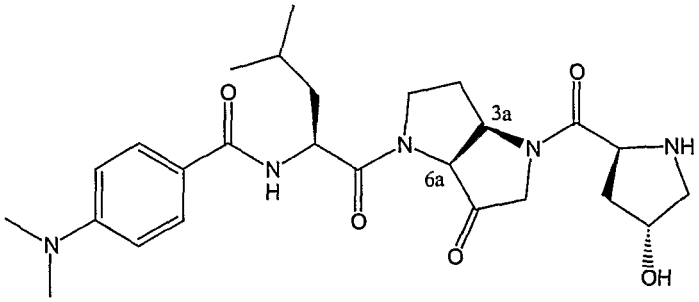
HPLC Rt = 9.88 mins (> 95%), HPLC-MS 526.2 $[M + H]^+$.

EXAMPLE 217. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-((2*S*)-piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



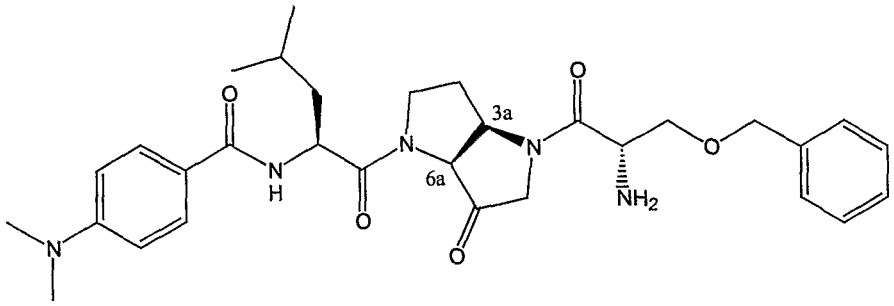
HPLC Rt = 9.12 mins (> 90%), HPLC-MS 498.2 $[M + H]^+$, 995.3 $[2M + H]^+$.

EXAMPLE 218. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-((2*S*, 4*R*)-4-hydroxy-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



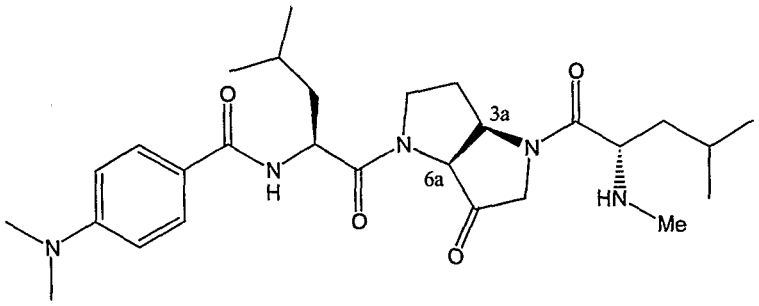
HPLC Rt = 8.00 mins (> 90%), HPLC-MS 500.2 $[M + H]^+$, 999.3 $[2M + H]^+$.

EXAMPLE 219. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-3-benzyloxy-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



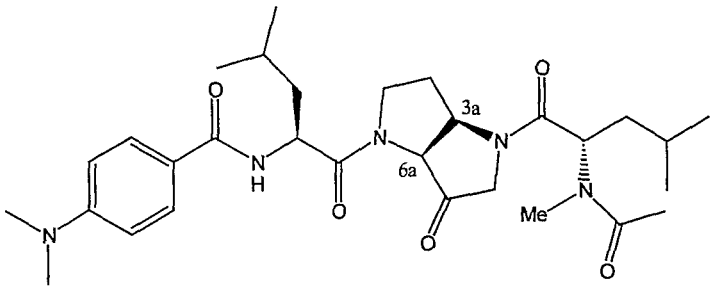
HPLC Rt = 11.6-12.7 mins (> 85%), HPLC-MS 564.2 $[M + H]^+$.

EXAMPLE 220. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-((2*S*)-4-methyl-2-methylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



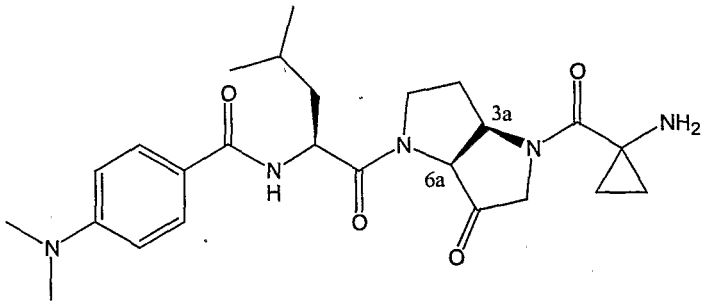
HPLC Rt = 12.12 mins (> 90%), HPLC-MS 514.2 $[M + H]^+$.

EXAMPLE 221. (3a*R*, 6a*S*)-*N*-((1*S*)-1-{4-[(2*S*)-2-(Acetyl-methyl-amino)-4-methyl-pentanoyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-dimethylamino-benzamide



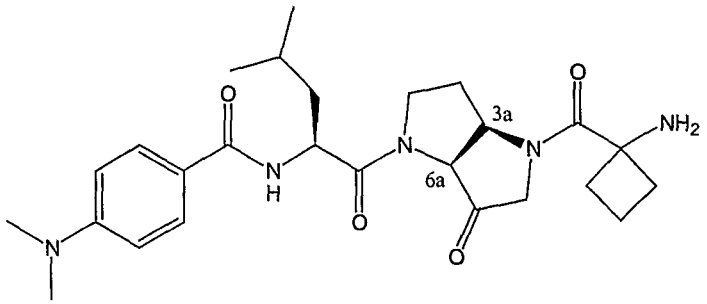
HPLC Rt = 13.37 mins (> 50%), HPLC-MS 556.2 $[M + H]^+$.

EXAMPLE 222. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(1-Amino-cyclopropanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



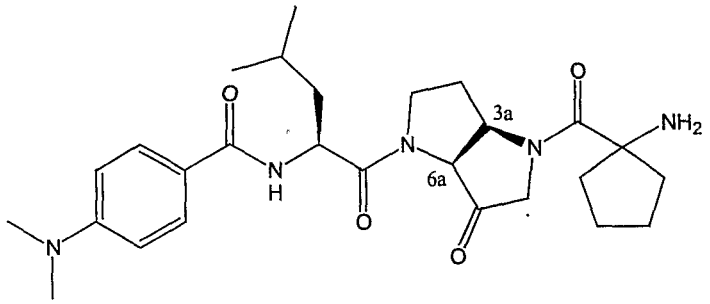
HPLC Rt = 8.16 mins (> 50%), HPLC-MS 470.2 $[M + H]^+$.

EXAMPLE 223. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



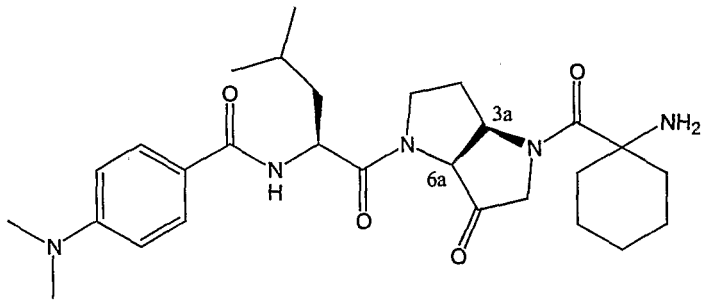
HPLC Rt = 8.4-8.9 mins (> 75%), HPLC-MS 484.2 $[M + H]^+$.

EXAMPLE 224. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



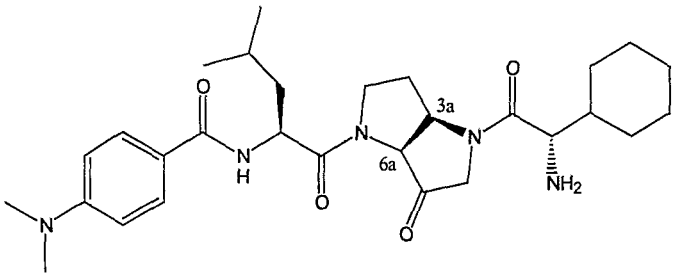
HPLC Rt = 8.5-8.9 mins (> 40%), HPLC-MS 498.2 $[M + H]^+$.

EXAMPLE 225. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



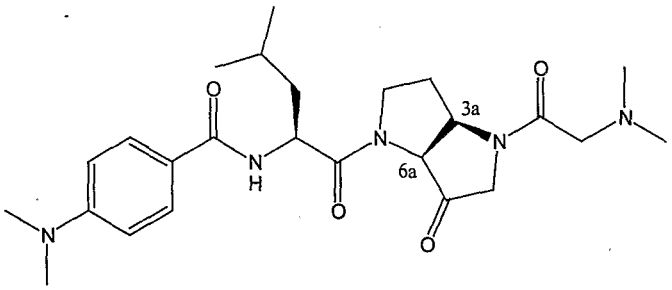
HPLC Rt = 9.1-9.5 mins (> 25%), HPLC-MS 529.9 $[M + H + H_2O]^+$.

EXAMPLE 226. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



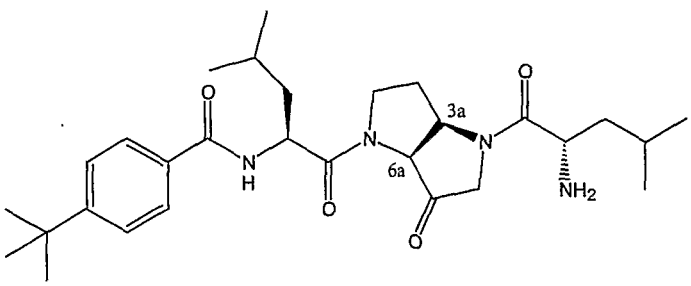
HPLC Rt = 12.17 mins (> 90%), HPLC-MS 526.2 $[M + H]^+$.

EXAMPLE 227. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



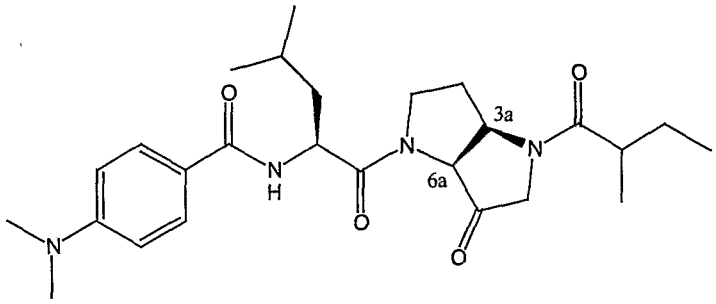
HPLC Rt = 7.7-8.1 mins (> 90%), HPLC-MS 472.2 $[M + H]^+$, 490.2 $[M + H + H_2O]^+$.

EXAMPLE 228. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide



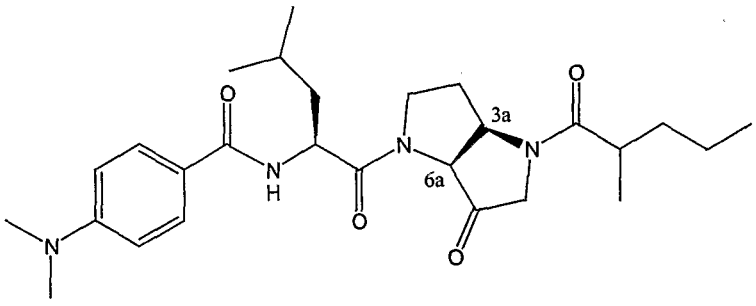
HPLC Rt = 15.47 mins (> 95%), HPLC-MS 513.2 $[M + H]^+$.

EXAMPLE 229. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(2-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



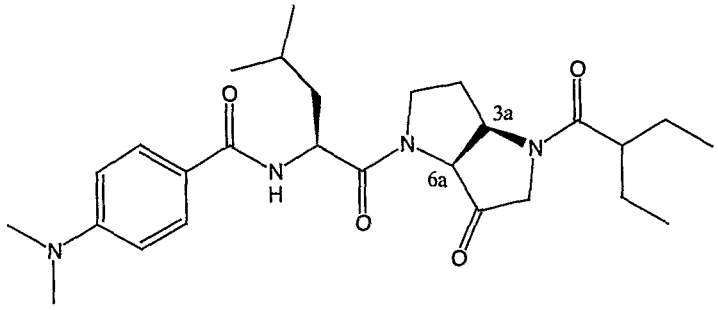
HPLC Rt = 11.4-11.5 mins (> 80%), HPLC-MS 471.2 $[M + H]^+$, 493.2 $[M + Na]^+$.

EXAMPLE 230. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[4-(2-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



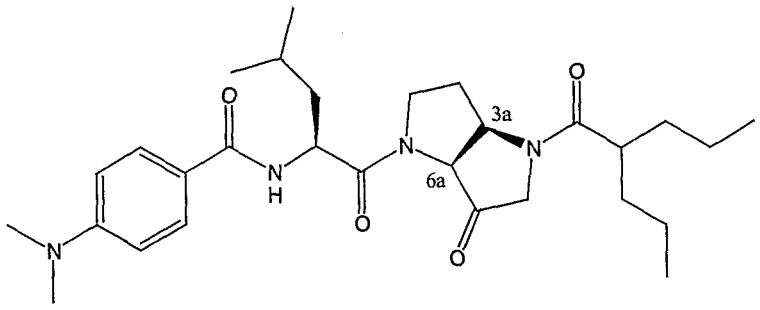
HPLC Rt = 12.4-13.3 mins (> 80%), HPLC-MS 485.2 $[M + H]^+$.

EXAMPLE 231. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-(2-ethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



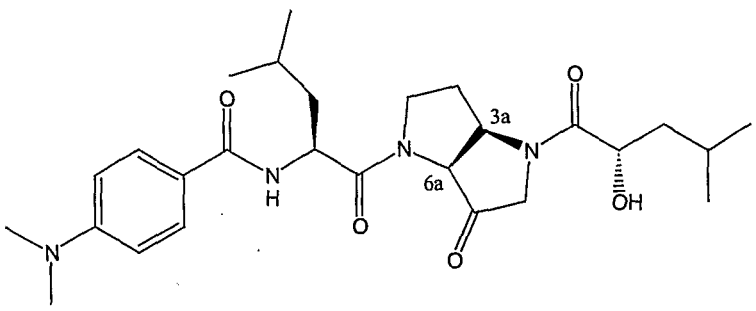
HPLC Rt = 12.34 mins (> 80%), HPLC-MS 485.2 $[M + H]^+$, 991.3 $[2M + Na]^+$.

EXAMPLE 232. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-propyl-pentanoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



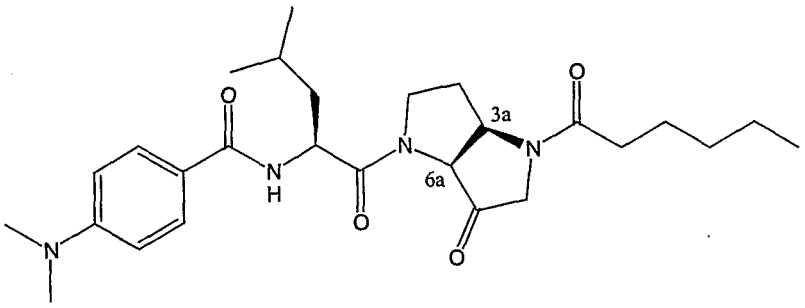
HPLC Rt = 14.75 mins (> 90%), HPLC-MS 513.2 $[M + H]^+$.

EXAMPLE 233. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-[4-((2*S*)-2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



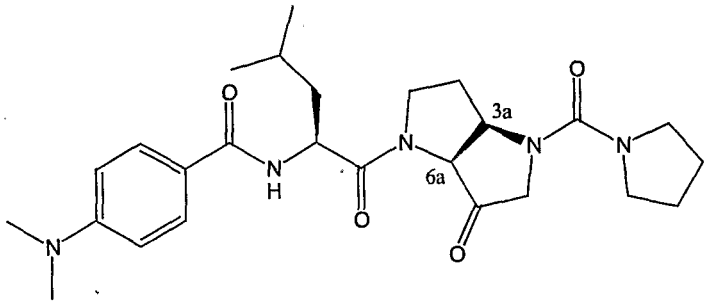
HPLC Rt = 12.04 mins (> 95%), HPLC-MS 501.2 $[M + H]^+$, 519.2 $[M + H + H_2O]^+$.

EXAMPLE 234. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-1-(4-hexanoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide



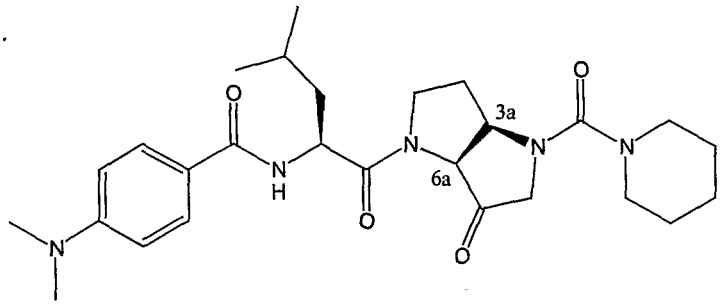
HPLC Rt = 13.24 mins (> 95%), HPLC-MS 485.2 $[M + H]^+$, 503.2 $[M + H + H_2O]^+$.

EXAMPLE 235. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



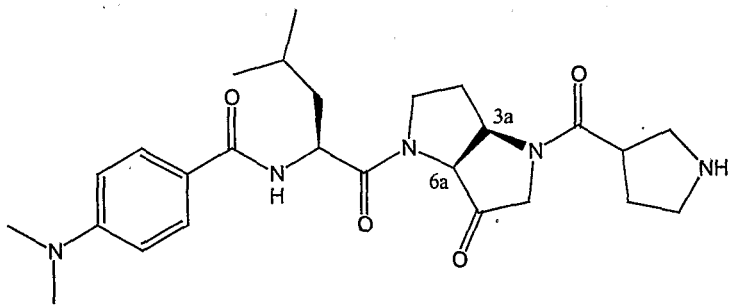
HPLC Rt = 11.06 mins (> 95%), HPLC-MS 484.1 $[M + H]^+$, 989.3 $[2M + Na]^+$.

EXAMPLE 236. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



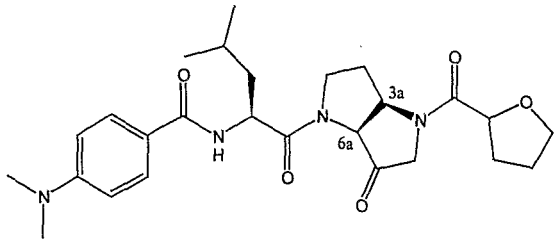
HPLC Rt = 12.21 mins (> 95%), HPLC-MS 498.2 $[M + H]^+$, 516.3 $[M + H + H_2O]^+$.

EXAMPLE 237. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(pyrrolidine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



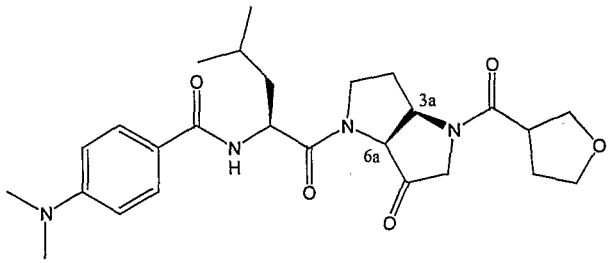
HPLC Rt = 8.13 mins (> 95%), HPLC-MS 484.1 $[M + H]^+$, 502.2 $[M + H + H_2O]^+$.

EXAMPLE 238. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



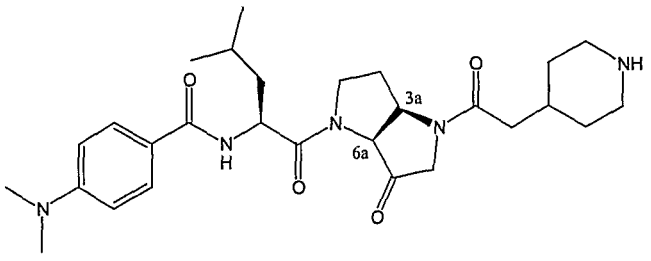
HPLC Rt = 9.89 mins (> 95%), HPLC-MS 485.1 $[M + H]^+$, 503.1 $[M + H + H_2O]^+$.

EXAMPLE 239. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(tetrahydro-furan-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



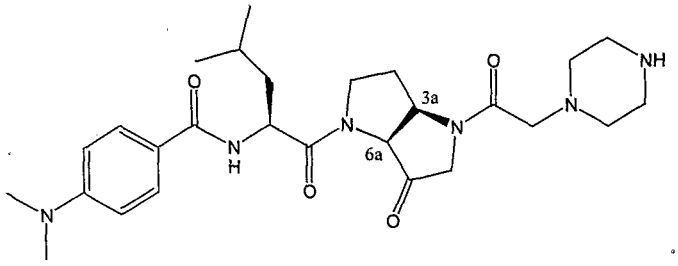
HPLC Rt = 10.40 mins (> 90%), HPLC-MS 485.1 $[M + H]^+$, 503.1 $[M + H + H_2O]^+$.

EXAMPLE 240. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-piperidin-4-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



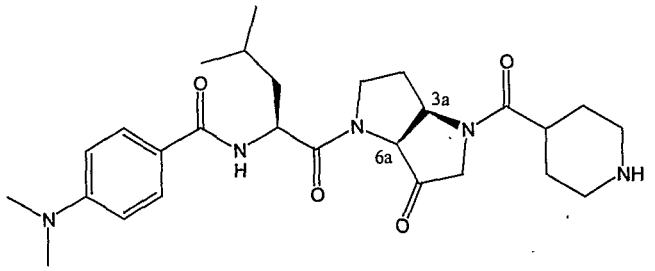
HPLC Rt = 8.8-9.6 mins (> 90%), HPLC-MS 512.2 $[M + H]^+$, 530.2 $[M + H + H_2O]^+$.

EXAMPLE 241. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



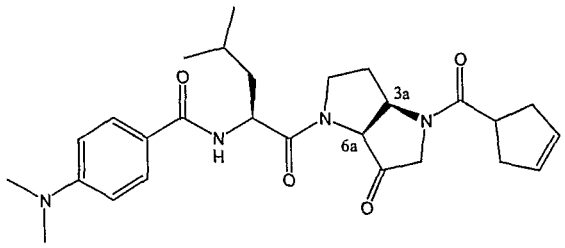
HPLC Rt = 7.3-8.2 mins (> 85%), HPLC-MS 513.1 $[M + H]^+$, 531.2 $[M + H + H_2O]^+$.

EXAMPLE 242. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-3-methyl-1-[6-oxo-4-(piperidine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide



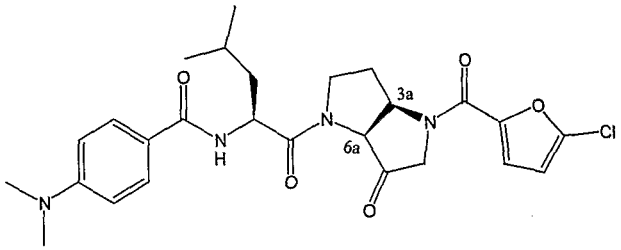
HPLC Rt = 8.2-8.9 mins (> 90%), HPLC-MS 498.2 $[M + H]^+$, 516.2 $[M + H + H_2O]^+$, 995.3 $[2M + H]^+$,

EXAMPLE 243. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



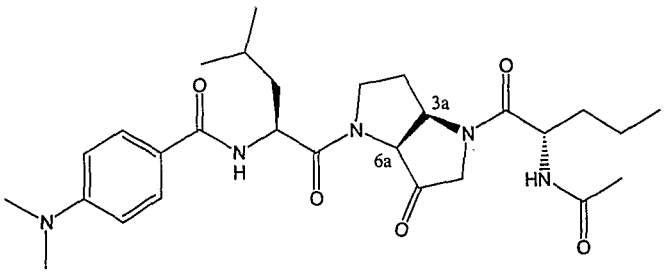
HPLC Rt = 11.39 mins (> 95%), HPLC-MS 481.2 $[M + H]^+$, 983.3 $[2M + Na]^+$.

EXAMPLE 244. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(5-Chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



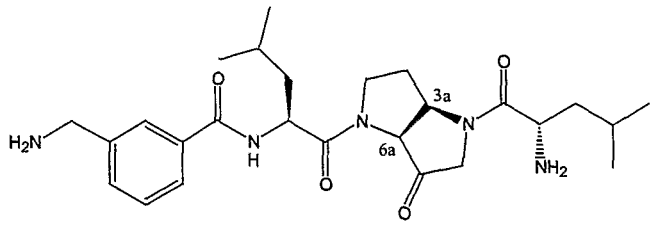
HPLC Rt = 13.17 mins (> 90%), HPLC-MS 515.1 $[M + H]^+$, 537.1 $[M + Na]^+$.

EXAMPLE 245. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-((2*S*)-2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide



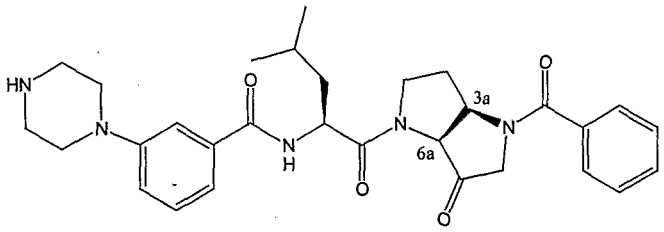
HPLC Rt = 11.18 mins (> 90%), HPLC-MS 528.2 $[M + H]^+$.

EXAMPLE 246. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-1-[4-((2*S*)-2-amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide



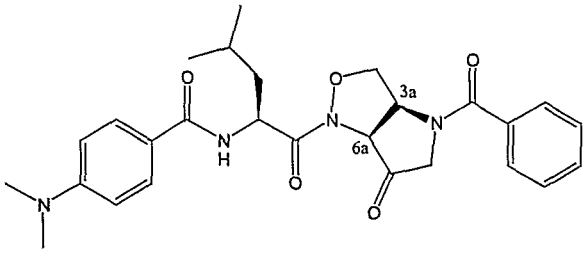
HPLC Rt = 8.87 mins (> 95%), HPLC-MS 486.2 $[M + H]^+$, 971.4 $[2M + H]^+$.

EXAMPLE 247. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-3-piperazin-1-yl-benzamide



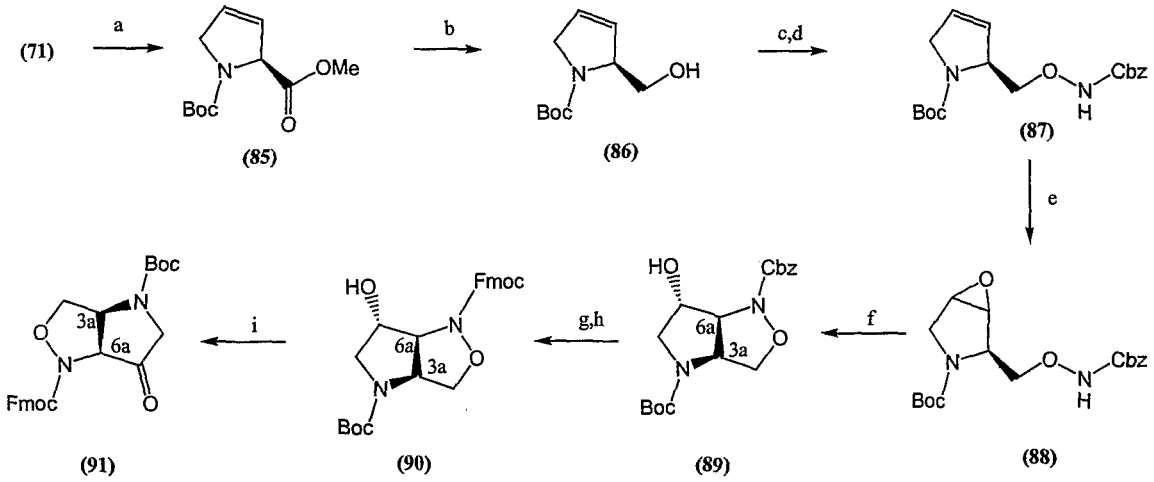
HPLC Rt = 10.92 mins (> 85%), HPLC-MS 532.1 $[M + H]^+$, 550.2 $[M + H + H_2O]^+$.

EXAMPLE 248. (3a*S*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-2-oxa-1,4-diaza-pentalene-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide



HPLC Rt = 13.18 mins (> 95%), HPLC-MS 493.1 $[M + H]^+$, 511.1 $[M + H + H_2O]^+$.

EXAMPLE 248 was prepared following the general methods detailed for EXAMPLE 1, but using an alternative building block (3a*S*, 6a*S*)-6-oxo-tetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester **(91)** prepared following general Scheme 5 and Scheme 22. Following solid phase synthesis, the crude product was purified by semi-preparative HPLC and lyophilised to give EXAMPLE 248.



Scheme 22. (a) Ethereal CH_2N_2, -15 °C to RT. (b) $LiBH_4$, MeOH, THF or DIBAL-H, THF (c) Methanesulfonyl chloride, triethylamine, DCM (d) Cbz-NH-OH, NaH, 65 °C (e) *m*-Chloroperoxybenzoic acid, DCM. (f) Potassium carbonate, CH_3CN (g) Pd-C, H_2, ethanol. (h) 1.05 eq Fmoc-Cl, 2.1eq Na_2CO_3, 1,4-dioxane, water (*i*) Dess-Martin periodinane, DCM.

Preparation of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-methyl ester (85)

Ethereal diazomethane [~23 mmol generated from addition of diazald (7.1 g,) in diethyl ether (115 ml) onto sodium hydroxide (8.0 g) in water (14 ml) / ethanol (28 ml) at 65 °C] was added in portions to a stirred solution of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester **(71)** (*ex* Bachem, 4.98 g,

23.4 mmol) in dichloromethane (100 ml) at 0 °C over 5 minutes. The solution was stirred for 1 hour at 0 °C then glacial acetic acid (0.5 ml) was added dropwise. The product was extracted into dichloromethane (50 ml) then washed with saturated aqueous sodium hydrogen carbonate solution (100 ml), water (100 ml) and brine (100 ml). The organic layer was dried (Na_2SO_4) and the solvents removed *in vacuo* to obtain (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-methyl ester **(85)** (4.66 g, 88%), which was used without further purification. TLC (Single spot, R_f = 0.25, EtOAc : heptane 1 : 4), HPLC-MS 172.1 $[M + 2H - Bu]^+$, 250.1 $[M + Na]^+$, 477.2 $[2M + Na]^+$; $C_{11}H_{17}NO_4.0.4H_2O$ req.(fnd.) % C 56.38 (56.47), % H 7.66 (7.25), % N 5.97 (5.88).

Preparation of (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (86)

Methanol (1.66 ml, 41 mmol) was added dropwise to a stirred suspension of lithium borohydride (0.90 g, 41 mmol) in tetrahydrofuran (20 ml) over 2 minutes under an atmosphere of argon, followed by a solution of (S)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-methyl ester **(85)** (4.65 g, 20.5 mmol) in tetrahydrofuran (50 ml) over 15 minutes. The mixture was stirred for 70 minutes then poured into water (125 ml). The product was extracted into dichloromethane (3x 100 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 15 : 85 to 25 : 75 to give (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(86)** as a colourless oil (3.75 g, 92%), $[a]_D^{22}$ –136° (c=1, $CHCl_3$). TLC (Single spot, R_f = 0.30, EtOAc : heptane 2 : 3), HPLC-MS 222.1 $[M + Na]^+$, 421.1 $[2M + Na]^+$; $C_{10}H_{17}NO_3.0.3H_2O$ req.(fnd.) % C 58.72 (58.82), % H 8.67 (8.35), % N 6.85 (6.88); d_H (500 MHz, $CDCl_3$) mixture of rotamers (major : minor = 4 : 1) 1.47 and 1.49 (9H total, each s, $(CH_3)_3C$), 3.55 (0.8H, ddd, J = 11.1, 7.7, 1.1 Hz, CH_2OH major), 3.61-3.66 (0.2H, m, CH_2OH minor), 3.77 (1H, m, CH_2OH), 3.95-4.09 (1H, m, H-5), 4.14-4.19 (0.8H, m, H-5 major), 4.24-4.30 (0.2H, m, H-5 minor), 4.58 (0.2H, br. s, H-2 minor), 4.64 (1H,

m, O*H*), 4.69-4.75 (0.8H, m, H-2 major), 5.57-5.63 and 5.78-5.82 (each 0.8H, m, H-3 and H-4 major), 5.65-5.70 and 5.89-5.94 (each 0.2H, m, H-3 and H-4 minor).

Alternative preparation of (*S*)-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (86)

A solution of diisobutylaluminium hydride (1.0M in tetrahydrofuran, 18.7 ml, 18.7 mmol) was added dropwise to a stirred solution of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-methyl ester **(85)** (*ex* Bachem, 1.06 g, 4.67 mmol) in tetrahydrofuran (15 ml) at –70 °C over 45 minutes under an atmosphere of argon. The mixture was stirred for 15 minutes at –70 °C then at ambient temperature for 3.25 hours before cooling to 0 °C and adding ethyl acetate (10 ml) dropwise followed by saturated aqueous sodium potassium tartrate solution (60 ml), ethyl acetate (65 ml) and brine (60 ml). The organic layer was separated then the aqueous layer extracted with ethyl acetate (60 ml). The organic layers were combined then washed with brine (50 ml), dried ($MgSO_4$), and solvents removed *in vacuo* to leave a residue which was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 15 : 85 to 25 : 75 to give (*S*)-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(86)** as a colourless oil (0.34 g, 36%), $[a]_D^{22}$ –120.5° (c=1, $CHCl_3$). TLC (Single spot, R_f = 0.30, EtOAc : heptane 2 : 3), analytical HPLC R_t = 9.375 min; HPLC-MS 222.1 $[M + Na]^+$, 421.2 $[2M + Na]^+$.

Preparation of (*S*)-(*N'*-benzyloxycarbonylaminooxymethyl)-2,5-dihydro pyrrole-1-carboxylic acid *tert*-butyl ester (87)

i) Pyridine (7.6 ml, 94.2 mmol) was added to a solution of (*S*)-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(86)** (3.75 g, 18.8 mmol) in dichloromethane whilst stirring at 0 °C followed by methanesulfonyl chloride (1.53 ml, 19.8 mmol) in portions over 10 minutes. The mixture was stirred for 1 hour at 0 °C then at ambient temperature for 14 hours. The product was extracted into dichloromethane (250 ml), washed with ice-chilled hydrochloric acid (1M, 2x

125 ml) and aqueous saturated sodium hydrogen carbonate solution (125 ml), dried (Na_2SO_4), and solvents removed *in vacuo* to leave (*S*)-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester as an oily residue (5.2 g, 100%) which was used without further purification. TLC (Single spot, R_f = 0.20, EtOAc : heptane 3 : 7), analytical HPLC R_t = 12.785 min; HPLC-MS 222.0 $[M + 2H - Bu]^+$, 577.1 $[2M + Na]^+$; d_H (500 MHz, $CDCl_3$) mixture of rotamers (major : minor = 4 : 3) 1.45 and 1.49 (9H total, each s, $(CH_3)_3C$), 2.96 (3H, s, SO_2CH_3), 4.02-4.03 (0.43H, m, H-5 minor), 4.04-4.07 (0.57H, m, H-5 major), 4.12-4.57 (3H, m, H-5, CH_2OS), 4.67 (0.43H, br. s, H-2), 4.74 (0.57H, br. s, H-2), 5.73-5.98 (2H, m, H-3 and H-4); d_C (125 MHz, $CDCl_3$) 28.41 ($C(\underline{C}H_3)_3$), 36.99, 37.46 ($S\underline{C}H_3$), 53.80, 53.95 (C-5), 62.90, 63.02 (C-2), 69.14, 69.34 ($\underline{C}H_2OS$), 80.12, 80.62 ($\underline{C}(CH_3)_3$), 126.08, 126.16 and 128.27, 128.36 (C-3 and C-4), 153.73, 154.13 (q, $N\underline{C}$=O).

ii) Sodium hydride (60% dispersion in oil, 3.0 g, 75.1 mmol) was added to a stirred solution of benzyl *N*-hydroxycarbamate (13.2 g, 78.8 mmol) in tetrahydrofuran (200 ml) at 0 °C in portions over 30 minutes under an atmosphere of argon. The mixture was stirred for 5 minutes at 0 °C then a solution of (*S*)-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (5.2 g, 18.6 mmol, prepared as above) in tetrahydrofuran (175 ml) was added dropwise over 15 minutes. The resulting cloudy suspension was stirred for 1 hour at ambient temperature then at 65 °C for 4 hours, followed by 14 hours at ambient temperature then 7 hours at 65 °C. The product was extracted into dichloromethane (250 ml) then cautiously washed with water (250 ml). The aqueous layer was extracted with dichloromethane (250 ml) then the combined organic layers washed with water (3x 150 ml) and brine (250 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified twice by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 25 : 75 to 30 : 70 then 0 : 100 to 25 : 75 to give (*S*)-(*N*'-benzyloxy carbonylaminooxymethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(87)** as a colourless oil (1.67 g, 26%) together with recovered (*S*)-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester

(2.44 g, 47%). Data for (*S*)-(*N'*-benzyloxycarbonylaminooxymethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(87)**. TLC (Single spot, R_f = 0.35, EtOAc : heptane 2 : 3), analytical HPLC R_t = 17.141 min; HPLC-MS 349.1 $[M + H]^+$, 371.1 $[M + Na]^+$, 719.2 $[2M + Na]^+$; Elemental analysis $C_{18}H_{24}N_2O_5$ req.(fnd.) % C 62.05 (62.18), % H 6.94 (7.05), % N 8.04 (7.90); HRMS $C_{18}H_{24}N_2O_5Na$ req. 371.1583, fnd. 371.1590 (1.83ppm); d_H (500 MHz, $CDCl_3$) mixture of rotamers (major : minor = 2 : 1) 1.46 (9H, s, $(CH_3)_3C$), 3.67 (0.67H, dd, J = 11.45 and 7.6 Hz, CH_2ONH major), 3.89 (0.33H, dd, J = 10.2 and 6.2 Hz, CH_2ONH minor), 3.99 (0.67H, dd, J = 11.45 and 3.7 Hz, CH_2ONH major), 3.95-4.10 (1H, m, H-5), 4.08-4.13 (0.33H, m, CH_2ONH minor), 4.21 (0.67H, dd, J = 15.7 and 1.8 Hz, H-5 major), 4.20-4.26 (0.33H, m, H-5, minor), 4.63 (0.33H, br. s, H-2 minor), 4.85-4.90 (0.67H, m, H-2 m, major), 5.13-5.18 (2H, m, OCH_2Ph), 5.68-5.73 and 5.82-5.87 (2H, m, H-3 and H-4), 7.30-7.37 (5H, aromatics), 7.52 (0.33H, br. s, N*H*, minor), 8.69 (0.67H, br. s, N*H*, major); d_C (125 MHz, $CDCl_3$) 28.40 ($C(\underline{C}H_3)_3$), 53.57, 53.78 (C-5), 62.18, 62.76 (C-2), 67.13, 67.55 ($O\underline{C}H_2Ph$), 77.27, 77.86 ($\underline{C}H_2ONH$), 80.07 ($\underline{C}(CH_3)_3$), 126.62, 126.72, 127.47 , 127.85, 128.12, 128.24, 128.50, 128.54, 128.58 (C-3, C-4, aromatic $\underline{C}H$), 135.48, 135.87, 136.18 (aromatic quaternary), 154.04, 155.24 ($CH_2N\underline{C}$=O), 156.94, 157.39 (ON$\underline{C}$=O).

Preparation of (2*R*)-(*N'*-benzyloxycarbonylaminooxymethyl)-6-oxa-3-aza bicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester (88)

meta-Chloroperoxybenzoic acid (57-86%, 1.9g, ~7.7 mmol) was added in portions under an atmosphere of argon over 15 minutes to a stirred solution of (*S*)-(*N'*-benzyloxycarbonylaminooxymethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(87)** (600 mg, 1.72 mmol) in dichloromethane (12 ml). The mixture was stirred for 14 hours then the product was extracted into dichloromethane (50 ml), washed with aqueous saturated sodium hydrogen carbonate solution (2x 30 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane 0 : 100 to 30 : 70 to give (2*R*)-(*N'*-benzyloxycarbonylaminooxymethyl)-6-oxa-3-

azabicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(88)** as a colourless oil (390 mg, 62%). TLC (Single spot, R_f = 0.35, EtOAc : heptane 2 : 3), analytical HPLC R_t = 15.733 min; HPLC-MS 265.1 $[M+ 2H - Boc]^+$, 309.0 $[M + 2H - Bu]^+$, 387.1 $[M + Na]^+$, 751.2 $[2M + Na]^+$; $C_{18}H_{24}N_2O_6.0.4H_2O$ req.(fnd.) % C 58.21 (58.24), % H 6.73 (6.62), % N 7.54 (7.57); HRMS $C_{18}H_{24}N_2O_6Na$ req. 387.1532, fnd. 387.1534 (0.42ppm).

Preparation of (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester (89)

Potassium carbonate (1.06 g, 7.7 mmol) was added to a stirred solution of (2*R*)-(*N'*-benzyloxycarbonylaminooxymethyl)-6-oxa-3-azabicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(88)** (280 mg, 0.77 mmol) in acetonitrile (4 ml) under an atmosphere of argon. The suspension was stirred for 5 hours then the product was extracted into dichloromethane (30 ml) and washed with water (10 ml). The aqueous layer was extracted with dichloromethane (10 ml) then the combined organic layers washed with water (10 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 30 : 70 to give (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester **(89)** as a colourless oil (141 mg, 50%) together with recovered (1*S*, 2*R*, 5*R*)-2-(*N'*-benzyloxycarbonylaminooxymethyl)-6-oxa-3-azabicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(88)** as a colourless oil (71 mg, 25%). Data for (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester **(89)**. TLC (Single spot, R_f = 0.20, EtOAc : heptane 2 : 3), analytical HPLC R_t = 14.994 min; HPLC-MS 265.1 $[M + 2H - Boc]^+$, 309.1 $[M + 2H - Bu]^+$, 751.2 $[2M + Na]^+$; HRMS $C_{18}H_{24}N_2O_6Na$ req. 387.1532, fnd. 387.1529 (-0.87ppm); d_H (500 MHz, $CDCl_3$) mixture of rotamers, *tentative proton assignment,* 1.45 (9H, s, $C(CH_3)_3$), 2.28 (1H, d, J = 3.9 Hz, O*H*), 3.45-4.81 (7H, m, BocNCHCH_2, BocNC*H*, BocNCH_2, C*H*OH, CbzNC*H*), 5.12-5.26 (2H, m, OCH_2Ph), 7.32-7.42 (5H, aromatics). Data for (1*S*, 2*R*, 5*R*)-2-(*N'*-benzyloxycarbonylaminooxymethyl)-

6-oxa-3-azabicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(88)**. TLC (Single spot, R_f = 0.35, EtOAc : heptane 40 : 60), HPLC-MS 265.1 $[M + 2H - Boc]^+$, 309.1 $[M + 2H - Bu]^+$, 387.1 $[M + Na]^+$, 751.2 $[2M + Na]^+$; d_H (500 MHz, $CDCl_3$) mixture of rotamers, *tentative proton assignment,* 1.41 (9H, s, $C(CH_3)_3$), 3.39-3.72 (3H, m, H-2 and H-5), 3.90-4.41 (4H, m, H-3, H-4 and CH_2ON), 5.12-5.20 (2H, m, OCH_2Ph), 7.31-7.39 (5H, aromatics), 7.60 and 8.0 (0.8H total, each br. s, N*H*).

Preparation of (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester (90)

Ethanol (2.5 ml) was cautiously added to a stirred mixture of (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester **(89)** (43 mg, 0.118 mmol) and 10% palladium on charcoal (5 mg) under an atmosphere of argon at 0 °C. The argon was replaced by hydrogen then the suspension was stirred at ambient temperature for 45 minutes then the hydrogen was replaced by argon before filtering the mixture through celite *in vacuo*. The filter cake was washed with ethanol (25 ml) then solvents removed *in vacuo* from the filtrate to leave (3a*S*, 6*S*, 6a*S*)-6-hydroxyhexahydro-2-oxa-1,4-diazapentalene-4-carboxylic acid *tert*-butyl ester as an oily residue (28 mg), which was used without further purification. HPLC-MS 175.1 $[M + 2H - Bu]^+$, 483.2 $[2M + Na]^+$. A solution of sodium carbonate (31 mg, 0.295 mmol) in water (1.75 ml) was added whilst stirring to a solution of (3a*S*, 6*S*, 6a*S*)-6-hydroxyhexahydro-2-oxa-1,4-diazapentalene-4-carboxylic acid *tert*-butyl ester (28 mg) in 1,4-dioxane (1.0 ml). The mixture was cooled to 0 °C then a solution of Fmoc-Cl (34 mg, 0.132 mmol) in 1,4-dioxane (0.75 ml) was added dropwise over 40 minutes. The mixture was stirred at 0 °C for 2.25 hours then at ambient temperature for 30 minutes. Water (20 ml) was added then the product extracted into dichloromethane (3x 15 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 30 : 70 to give (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl

ester 1-(9H-fluoren-9-ylmethyl) ester **(90)** as a white solid (40 mg, 75%). TLC (Single spot, R_f = 0.20, EtOAc : heptane 3 : 7), analytical HPLC R_t = 18.217 min; HPLC-MS 475.1 $[M + Na]^+$, 927.2 $[2M + Na]^+$; $C_{25}H_{28}N_2O_6$.0.5EtOAc req.(fnd.) % C 65.35 (64.85), % H 6.50 (6.21), % N 5.64 (5.66).

Preparation of (3a*S*, 6a*S*)-6-oxo-tetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester (91)

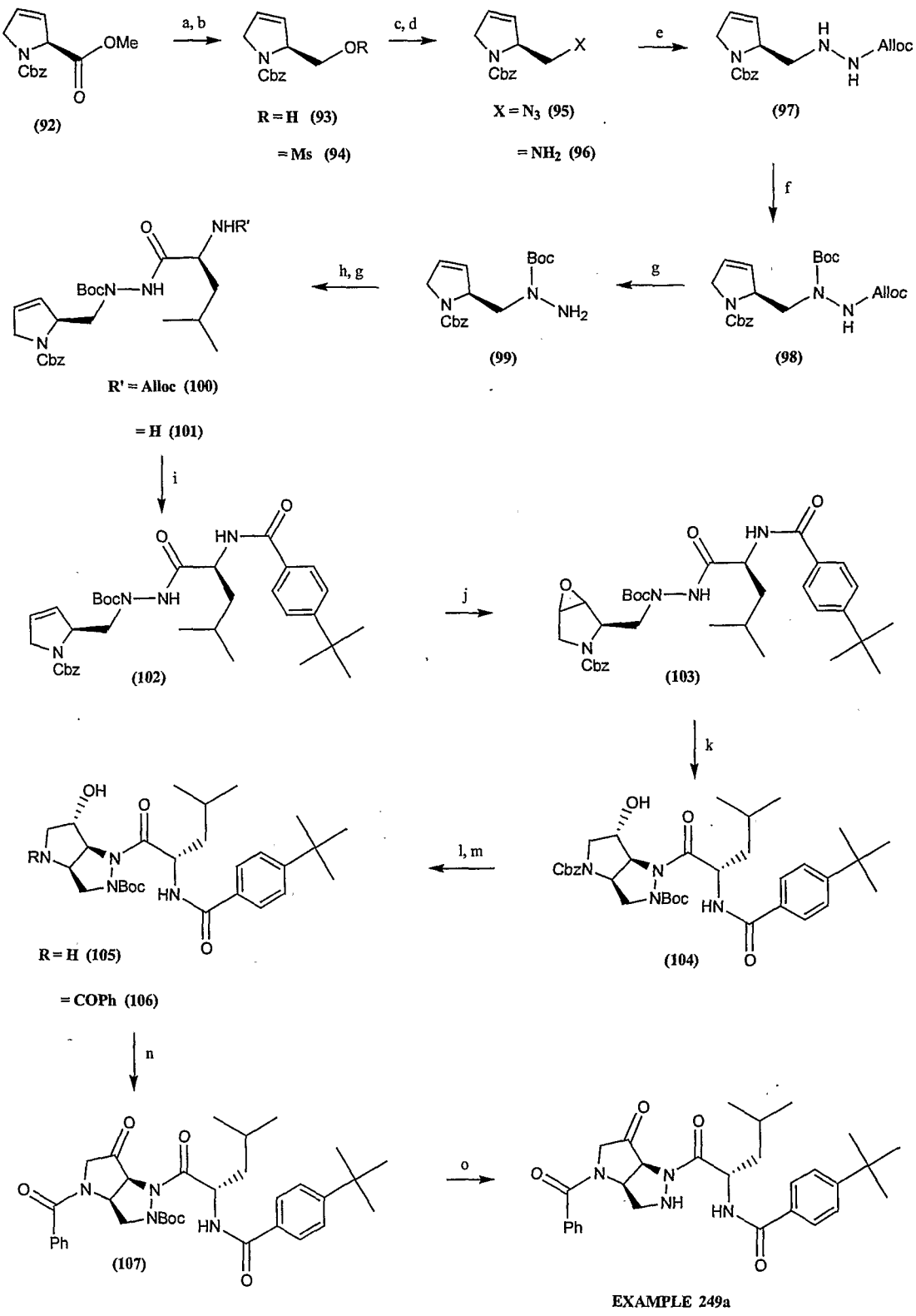
Dess-Martin periodinane (73 mg, 0.170 mmol) was added to a stirred solution of (3a*S*, 6*S*, 6a*S*)-6-hydroxytetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester **(90)** (39 mg, 0.086 mmol) in dichloromethane (1.25 ml). The mixture was stirred for 2.5 hours, stored at –80 °C for 14 hours, and then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 5 : 95 to 15 : 85 to give (3a*S*, 6a*S*)-6-oxo-tetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester **(91)** as a white solid (31 mg, 80%). TLC (Single spot, R_f = 0.30, EtOAc : heptane 2 : 3), analytical HPLC broad peak R_t = 19.57-22.15 min; HPLC-MS single broad main UV peak, 473.1 $[M + Na]^+$, 491.1 $[M + H_2O + Na]^+$, 923.1 $[2M + Na]^+$, 959.1 $[2M + 2H_2O + Na]^+$; HRMS $C_{25}H_{26}N_2O_6Na$ req. 473.1689, fnd. 473.1690 (0.24ppm); d_H (500 MHz, $CDCl_3$) mixture of rotamers major : minor 1.5 : 1, 1.48 (5.4H, s, $C(CH_3)_3$ major), 1.50 (3.6H, s, $C(CH_3)_3$ minor), 3.49-3.58 (1H, m, BocNCHCH_2), 3.78-3.92 (2H, m, BocNCH_2), 4.13 (0.4H, d, J = 9.5Hz, BocNCHCH_2 [minor]), 4.20-4.29 (1.6H, m, Fmoc-C*H* and BocNCHCH_2 [major]), 4.46-4.52 (1H, m, Fmoc-CH_2), 4.60-4.74 (2.4H, m, Fmoc-CH_2, FmocNC*H*, BocNC*H* [minor]), 4.83 (0.6H, dd, J = 7.5 and 4.3Hz, BocNC*H* [major]), 7.29-7.78 (8H, aromatic); d_C (125 MHz, $CDCl_3$) 28.38, 28.31 ($C(\underline{C}H_3)_3$), 46.96, 47.05 (Fmoc-<u>C</u>H), 52.40, 52.93 (BocN<u>C</u>H_2), 61.95 (BocN<u>C</u>H), 64.48, 65.31 (FmocN<u>C</u>H), 68.59, 68.76 (Fmoc-<u>C</u>H2), 77.17, 77.31 (BocNCH<u>C</u>H_2), 81.61 ($\underline{C}(CH_3)_3$),120.02, 125.11, 125.35, 127.21, 127.28, 127.98 (Fmoc aromatic <u>C</u>H), 141.29, 141.33, 143.04, 143.12 (Fmoc quaternary), 153.09, 154.00 (Boc <u>C</u>=O), 157.64 (Fmoc <u>C</u>=O), 204.85, 205.44 (<u>C</u>=O).

Broadly following the general details from Scheme 6, the required bicycle building block (3a*S*, 6a*S*)-6-oxo-tetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester **(91)** was converted to the corresponding equivalent of building block-linker construct **(27)** (where Pg_2 is *tert*-butoxycarbonyl) as follows:

A solution of sodium acetate trihydrate (24 mg, 0.173 mmol) in water (0.25 ml) was added to a solution of (3a*S*, 6a*S*)-6-oxo-tetrahydro-2-oxa-1,4-diazapentalene-1,4-dicarboxylic acid 4-*tert*-butyl ester 1-(9H-fluoren-9-ylmethyl) ester **(91)** (26 mg, 0.058mmol) and 4-[[(hydrazinocarbonyl)amino]methyl]cyclohexane carboxylic acid. trifluoroacetate (Murphy, A. M., *et al*, J. Am. Chem. Soc, 114, 3156-3157, **1992**) (38 mg, 0.116 mmol) in ethanol (1.75 ml). The reaction heated at 75 °C in a sealed tube for 1.5 hour. The product was extracted into chloroform (50 ml) then washed with hydrochloric acid (0.1M, 2 x 25 ml), saturated aqueous sodium chloride solution (30 ml) then dried (Na_2SO_4) and the solvent removed *in vacuo* to leave the product as a white solid (37 mg, ~100%). Analytical HPLC has main UV peaks with Rt = 20.223 and 21.596mins and HPLC-MS (main UV peaks each with 648.2 $[M+H]^+$).

Following the general details from Scheme 6, the corresponding building block-linker construct was attached to the solid phase providing loaded building block-linker construct following standard loading protocols and indicated quantitative loading.

EXAMPLES 249a to 249c were prepared entirely by solution phase synthesis methods (broadly defined by the general strategy detailed in Scheme 4) following Schemes 23 to 25 and have utility as inhibitors of cathepsin K with Ki < 1000nM.



Scheme 23. (a) DIBAL-H, THF or $LiBH_4$, MeOH, THF (b) Methanesulfonyl chloride, triethylamine, DCM (c) Sodium azide, DMF, 110°C (d) Ph_3P / H_2O, 1,4-dioxane, 50°C (e) 3-Phenyloxaziridine-2-carboxylic acid allyl ester, DCM (f) $(Boc)_2O$, DCM, 60°C (g) $Pd(PPh_3)_4$,

$PhSiH_3$, DCM (h) Alloc-Leu-F, DMF (i) 4-*tert*-Butylbenzoic acid, HBTU, HOBT, NMM, DMF (j) *m*-Chloroperoxybenzoic acid, DCM. (k) Potassium carbonate, CH_3CN, 60°C (l) Pd-C, H_2, ethanol (m) $(PhCO)_2O$, DMF (n) Dess-Martin periodinane, DCM (o) TFA, DCM

Preparation of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-benzyl ester 2-methyl ester (92)

Carbonic acid benzyl ester 2,5-dioxopyrrolidin-1-yl ester (8.45 g, 33.9 mmol) then triethylamine (10.8 ml, 77 mmol) were added dropwise to a stirred solution of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-benzyl ester 2-methyl ester hydrochloride (5.0 g, 30.6 mmol) and THF : water (1 : 1, 306 ml) at 0 °C. The mixture was stirred at ambient temperature for 12 hours then half of the solvent was removed *in vacuo*. The product was extracted into *tert*-butyl methyl ether (3 x 100 ml) then the combined organic layers were washed with 5% hydrochloric acid (100 ml), 5% aqueous sodium hydrogen carbonate solution (100 ml) and brine (100 ml), dried ($MgSO_4$), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with heptane : *tert*-butyl methyl ether 2 : 1 to give (*S*)-2,5-dihydro pyrrole-1,2-dicarboxylic acid 1-benzyl ester 2-methyl ester **(92)** as a pale yellow oil (7.9 g, 99%). TLC (R_f = 0.30, heptane : *tert*-butyl methyl ether 1 : 1), analytical HPLC single peak with R_t = 13.935 min, HPLC-MS 262.0 $[M + H]^+$, 284.0 $[M + Na]^+$, 545.1 $[2M + Na]^+$. δ_H (500 MHz, $CDCl_3$) approximately 1 : 1 mixture of rotamers, 3.57 and 3.64 (3H, each s, OCH_3), 4.22-4.36 (2H, m, H-5), 5.03-5.14 (3H, m, OCH_2Ph and H-2), 5.69-5.78 and 5.92-5.99 (2H, each m, H-3 and H-4), 7.29-7.39 (5H, aromatics); δ_C (125 MHz, $CDCl_3$) 52.25 and 52.42 ($O\underline{C}H_3$), 53.36 and 53.85 (C-5), 66.25 and 66.56 (C-2), 67.09 and 67.16 ($Ph\underline{C}H_2O$), 124.66, 127.80, 127.91, 127.98, 128.03, 128.40, 128.46, 129.09 and 129.18 (C-3, C-4 and aromatic $\underline{C}H$), 136.43 and 136.51 (aromatic quaternary), 153.91 and 154.36 ($N\underline{C}$=O), 170.38 and 170.62 ($CH\underline{C}$=O).

Preparation of (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (93)

Diisobutylaluminium hydride (1.5M in toluene, 2.62 ml, 3.93 mmol) was added dropwise over 20 minutes to a stirred solution of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-benzyl ester 2-methyl ester **(92)** (0.41 g, 1.57 mmol) in THF (15 ml), at –78 °C under an atmosphere of argon. The mixture was stirred for 2 hours at –78 °C then at ambient temperature for 18 hours. Saturated aqueous potassium sodium tartrate solution (40 ml) was added slowly to the mixture, followed by ethyl acetate (40ml) and magnesium sulphate ~5 g. The resultant slurry was vigorously stirred for 2 hours, then filtered and the filter cake washed with ethyl acetate. The filtrate was concentrated *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane 1 : 4 to give (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(93)** as a pale yellow oil (130 mg, 36%). TLC (R_f = 0.30, heptane : ethyl acetate 1 : 1), analytical HPLC single peak with R_t = 11.033 min, HPLC-MS 234.1 $[M + H]^+$, 256.0 $[M + Na]^+$, 489.1 $[2M + Na]^+$. d_H (500 MHz, $CDCl_3$) approximately 4 : 1 mixture of rotamers, 3.58-3.66 (1H, m, C*H*$_2$OH), 3.77-3.85 (1H, m, C*H*$_2$OH), 4.14-4.32 (3H, m, CH$_2$O*H* and H-5), 4.63-4.68 (0.2H, br. s, H-2 minor), 4.76-4.81 (0.8H, m, H-2 major), 5.14-5.21 (2H, m, OC*H*$_2$Ph), 5.63-5.66 and 5.81-5.85 (1.6H, m, H-3 and H-4 major), 5.69-5.73 and 5.90-5.96 (0.4H, m, H-3 and H-4 minor), 7.29-7.39 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 53.98 (major) and 54.59 (minor) (C-5), 64.27 (minor) and 66.65 (major) (CH$_2$OH), 66.11 (minor) and 68.08 (major) (C-2), 67.41 (PhCH$_2$O), 126.67, 126.70, 126.96, 127.19, 127.40, 127.62, 127.95, 128.17, 128.54 and 128.60 (C-3, C-4 and aromatic CH), 136.30 (aromatic quaternary), 156.68 (NC=O).

Alternative preparation of (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (93)

Methanol (2.43 ml) followed by a solution of (*S*)-2,5-dihydropyrrole-1,2-dicarboxylic acid 1-benzyl ester 2-methyl ester **(92)** (7.90 g, 30.2 mmol) in THF (125 ml) were added dropwise to a stirred suspension of lithium borohydride (1.32 g, 60.5 mmol) in THF (45 ml). The mixture was stirred for 1 hour then

water (10 ml) cautiously added dropwise. The product was extracted into *tert*-butyl methyl ether (3 x 100 ml) then the combined organic layers dried ($MgSO_4$), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with heptane : ethyl acetate 4 : 1 to give (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(93)** as a pale yellow oil (6.38 g, 90%). TLC (R_f = 0.30, heptane : ethyl acetate 1 : 1), analytical HPLC single peak with R_t = 11.036 min, HPLC-MS 234.1 $[M + H]^+$, 256.0 $[M + Na]^+$, 489.1 $[2M + Na]^+$.

Preparation of (*S*)-2-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (94)

Triethylamine (337 µl, 2.4 mmol) was added dropwise to a stirred solution of (*S*)-2-hydroxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(93)** (0.35 g, 1.50 mmol) and methanesulfonyl chloride (174 µl, 2.25 mmol) in dichloromethane (10 ml) at 0 °C. The mixture was stirred for 30 minutes then washed with water (10 ml) and brine (10 ml), dried (Na_2SO_4), and the solvents removed *in vacuo* to give (*S*)-2-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(94)** as a pale yellow oil (443 mg, 95%) which was used without further purification. TLC (R_f = 0.30, heptane : ethyl acetate 1 : 1), analytical HPLC single peak with R_t = 14.115 min, HPLC-MS 312.0 $[M + H]^+$, 334.0 $[M + Na]^+$, 645.1 $[2M + Na]^+$.

Preparation of (*S*)-2-azidomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (95)

Sodium azide (8.89 g, 137 mmol) was added to a stirred solution of (*S*)-2-methanesulfonyloxymethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(94)** (8.52 g, 27.4 mmol) in DMF (150 ml). The reaction mixture was stirred at 110 °C for 1 hour. The solvent was removed *in vacuo* then the product extracted into ethyl acetate (300 ml), washed with water (300 ml), brine (200 ml), dried ($MgSO_4$), and the solvents removed *in vacuo*. The residue was purified by flash

chromatography over silica eluting with heptane : ethyl acetate 9 : 1 to give (*S*)-2-azidomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(95)** as a pale yellow oil (5.05 g, 72 %). TLC (R_f = 0.65, heptane : ethyl acetate 1 : 1), analytical HPLC single peak with R_t = 17.855 min, HPLC-MS 259.0 $[M + H]^+$, 281.0 $[M + Na]^+$, 539.1 $[2M + Na]^+$.

Preparation of (*S*)-2-aminomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (96)

Triphenylphosphine (3.20 g, 12.2 mmol) was added to a stirred solution of (*S*)-2-azidomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(95)** (2.10 g, 8.13 mmol) in THF (170 ml) containing water (2 ml). The mixture was stirred at 50 °C for 2.5 hours then at ambient temperature 16 hours. The were solvents removed *in vacuo* then the residue was purified by flash chromatography over silica eluting with dichloromethane : methanol 99 : 1 to 95 : 5 mixtures to give (*S*)-2-aminomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(96)** as a pale yellow oil (2.15 g) which was contaminated with triphenylphosphine oxide. The pale yellow oil was dissolved in *tert*-butyl methyl ether (15 ml) then cooled to 0 °C before adding HCl in 1,4-dioxane (4M, 5 ml) followed by iced-water (20ml). The aqueous layer was extracted with *tert*-butyl methyl ether (3 x 20 ml), then the pH adjusted to ~12 using 1M aqueous sodium hydroxide solution. The product was then extracted into dichloromethane (3 x 50 ml) and the combined dichloromethane layers were dried ($MgSO_4$), and the solvents removed *in vacuo* to give (*S*)-2-aminomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(96)** as a pale yellow oil (1.40 g, 74%). TLC (R_f = 0.20, methanol : dichloromethane 1 : 9), HPLC-MS 233.1 $[M + H]^+$, 255.1 $[M + Na]^+$, 487.1 $[2M + Na]^+$. d_H (500 MHz, D_6-DMSO) 1.30-2.10 (1H, br. s, CH_2NH_2), 3.00-3.70 (1H, br. s, CH_2NH_2), 2.64-2.75 (1H, m, CH_2NH_2), 2.79-2.88 (1H, m, CH_2NH_2), 4.00-4.21 (2H, m, H-5), 4.42-4.47 (1H, m, H-2), 5.05-5.16 (2H, m, $PhCH_2O$), 5.84-6.01 (2H, m, H-4 and H-5), 7.31-7.40 (5H, aromatics); d_C (125 MHz, D_6-DMSO) 43.91 and 44.85 ($\underline{C}H_2NH_2$), 53.86 and 54.47 (C-5), 65.81 and 65.99 ($Ph\underline{C}H_2O$), 66.41 and 67.17 (C-2), 126.30, 126.36, 127.55, 127.58, 127.84, 127.86, 128.48, 128.51, 128.83

and 129.06 (C-3, C-4 and aromatic CH), 137.13 and 137.17 (aromatic quaternary), 153.82 and 153.97 (NC=O).

Preparation of (*S*)-2-(*N'*-allyloxycarbonylhydrazinomethyl)-2,5-dihydro pyrrole-1-carboxylic acid benzyl ester (97)

i) Preparation of 3-phenyloxaziridine-2-carboxylic acid allyl ester

Ice-chilled sodium hydroxide (2M, 50 ml, 100 mmol) was added to a vigorously stirred solution of benzaldehyde (5.3 g, 50 mmol) in diethyl ether (50 ml) at ambient temperature, then ice-chilled solutions of hydroxylamine-*O*-sulfuric acid (6.0 g, 53 mmol) in water (50 ml) and sodium hydroxide (2M, 25 ml, 50 mmol) were added simultaneously over 20 minutes. Allyl chloroformate (5.31 ml, 50 mmol) was added dropwise over 5 minutes then the mixture was stirred at 0 °C for 10 minutes before separating the ethereal layer. The aqueous phase was extracted with diethyl ether (2 x 25 ml), then the combined organic layers stirred at 0 °C for 10 minutes with a solution of hydroxylamine-*O*-sulfuric acid (2.5 g, 21 mmol) in water (25 ml). The phases were separated, then the aqueous phase extracted with diethyl ether (2 x 25 ml). The combined ethereal layers were dried ($MgSO_4$), and the solvents removed *in vacuo*. The brown oily residue was purified by flash chromatography over silica eluting with heptane : ethyl acetate 9 : 1 to give 3-phenyloxaziridine-2-carboxylic acid allyl ester as a pale yellow oil (1.44 g, 14%). TLC (R_f = 0.7, heptane : ethyl acetate 1 : 1), HPLC-MS 206.0 $[M + H]^+$, 228.1 $[M + Na]^+$, 433.0 $[2M + Na]^+$.

ii) 3-Phenyloxaziridine-2-carboxylic acid allyl ester (prepared as above, 1.16 g, 5.63 mmol) was added to a stirred solution of (*S*)-2-aminomethyl-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(96)** (0.35 g, 1.50 mmol) in dichloromethane (10 ml). The mixture was stirred for 16 hours then the solvents were removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 4 to give (*S*)-2-(*N'*-allyloxycarbonylhydrazinomethyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl

ester **(97)** as a pale yellow oil (0.18 g, 36%). TLC (R_f = 0.45, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 14.789 min, HPLC-MS 332.1 $[M + H]^+$, 354.1 $[M + Na]^+$, 685.2 $[2M + Na]^+$. d_H (500 MHz, $CDCl_3$) mixture of rotamers, tentative assignment of spectrum 2.73-3.40 (2H, m, CH_2NHNH), 4.08-4.80 (5H, m, H-2, H-5 and $CH_2CH=CH_2$), 4.95-5.35 (4H, m, $PhCH_2O$ and $CH_2CH=CH_2$), 5.57-5.98 (3H, m, H-4, H-5 and $CH_2CH=CH_2$), 7.25-7.55 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 53.61, 53.65, 54.02 and 54.07 (C-5 and $\underline{C}H_2NHNH$), 65.24 (C-2), 65.87, 66.21, 66.43, 66.82 and 67.13 ($\underline{C}H_2CH=CH_2$ and $Ph\underline{C}H_2O$), 117.48, 117.83, 118.20 and 118.49 ($CH_2CH=\underline{C}H_2$), 127.00, 127.13, 127.70, 127.79, 127.93, 128.02, 128.13, 128.33, 128.52 and 128.54 (C-3, C-4 and aromatic $\underline{C}H$), 132.11, 132.17, 132.21, 132.46, 132.54 and 132.68 ($CH_2\underline{C}H=CH_2$), 136.65 (aromatic quaternary), 154.52, 154.82, 155.85 and 156.21 ($NNH\underline{C}=O$), 158.69 ($CH_2N\underline{C}=O$).

Preparation of (*S*)-2-(*N*-*tert*-butoxycarbonyl-*N'*-allyloxycarbonylhydrazino methyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (98)

Three portions of Boc anhydride (each 1.20 g, 5.55 mmol) were added at one hour intervals to a stirred solution of (*S*)-2-(*N'*-allyloxycarbonylhydrazinomethyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(97)** (184 mg, 0.56 mmol) in triethylamine : methanol (1 : 9, 10 ml). The mixture was stirred at 60 °C for 3 hours then the solvents were removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 4 to give (*S*)-2-(*N*-*tert*-butoxycarbonyl-*N'*-allyloxycarbonylhydrazinomethyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(98)** as a pale yellow oil (190 mg, 79%). TLC (R_f = 0.5, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 19.828 min, HPLC-MS 432.2 $[M + H]^+$, 454.1 $[M + Na]^+$, 885.2 $[2M + Na]^+$. d_H (500 MHz, $CDCl_3$) mixture of rotamers approximately 4 : 1, 1.38-1.45 (9H, br. s, $C(CH_3)_3$), 3.45-3.74 (2H, m, CH_2NNH), 4.02-4.16 (1H, m, H-5), 4.24-4.38 (1H, m, H-5), 4.54-4.68 (2H, m, $CH_2CH=CH_2$), 4.72 (minor), 4.84 (major) (1H total, each br. s, H-2), 5.03-5.20 (2H, m, $PhCH_2O$), 5.18-5.34 (2H, m, $CH_2CH=CH_2$), 5.76 (1H, br. s, H-3), 5.79-5.85 (1H, m, H-4), 5.84-5.95 (1H, m, $CH_2CH=CH_2$),

7.28-7.40 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 28.07 ($C(\underline{C}H_3)_3$), 53.32 ($\underline{C}H_2NNH$), 53.86 (C-5), 62.45 and 62.86 (C-2), 66.21 and 67.02 ($\underline{C}H_2CH=CH_2$ and $PhCH_2O$), 81.03 and 81.43 ($\underline{C}(CH_3)_3$), 117.97 and 118.26 ($CH_2CH=\underline{C}H_2$), 126.63, 128.00, 128.47 and 128.68 (C-3, C-4 and aromatic $\underline{C}H$), 132.22 and 132.42 ($CH_2\underline{C}H=CH_2$), 136.48 (aromatic quaternary), 154.96 and 155.57 ($NHNH\underline{C}=O$ and $CH_2N\underline{C}=O$).

Preparation of (*S*)-2-(*N*-*tert*-butoxycarbonylhydrazinomethyl)-2,5-dihydro pyrrole-1-carboxylic acid benzyl ester (99)

Tetrakis(triphenylphosphine)palladium(0) (10.2 mg, 0.0088 mmol) was added to a stirred solution of (*S*)-2-(*N*-*tert*-butoxycarbonyl-*N'*-allyloxycarbonylhydrazine methyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(98)** (190 mg, 0.44 mmol) in dichloromethane (10 ml) under an atmosphere of argon. Phenylsilane (0.109 ml, 0.88 mmol) was then added dropwise over two minutes. The solution was stirred for 1 hour then the solvents were removed *in vacuo*. The oily residue was purified by flash chromatography over silica eluting with heptane : *tert*-butyl methyl ether 9 : 1 to 0 : 1 mixtures to give (*S*)-2-(*N*-*tert*-butoxycarbonylhydrazinomethyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(99)** as a pale yellow oil (148 mg, 97%). TLC (R_f = 0.35, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 15.669 min, HPLC-MS 248.1 [M + 2H - Boc]$^+$, 292.1 [M + 2H - Bu]$^+$, 370.1 [M + Na]$^+$, 717.3 [2M + Na]$^+$. d_H (500 MHz, $CDCl_3$) 1.41-1.45 (9H, br. s, $C(CH_3)_3$), 1.45-1.70 (2H, br. s, NH_2), 3.53-3.95 (2H, m, CH_2NNH_2), 4.03-4.12 (1H, m, H-5), 4.25-4.36 (1H, m, H-5), 4.74-4.91 (1H, m, H-2), 5.04-5.26 (2H, m, $PhCH_2O$), 5.73-5.87 (2H, m, H-4 and H-5), 7.28-7.41 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 28.26 ($C(\underline{C}H_3)_3$), 53.23 (C-5), 53.70 ($\underline{C}H_2NNH_2$), 63.24 (C-2), 66.73 and 67.18 ($PhCH_2O$), 80.25 and 80.53 ($\underline{C}(CH_3)_3$), 126.01, 127.82, 127.91, 128.08, 128.22, 128.42 and 128.49 (C-3 C-4, and aromatic $\underline{C}H$), 136.69 (aromatic quaternary).

Preparation of (2*S*)-2-[*N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N-tert*-butoxycarbonylhydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (100)

(i) Preparation of Alloc-L-Leucine Fluoride (Alloc-Leu-F)

Alloc-L-Leucine (0.90 g, 4.2 mmol) was dissolved in dichloromethane (50 ml) with stirring under nitrogen. (Diethylamino)sulfur trifluoride (DAST, 790 µl, 6.0 mmol) was added and the mixture stirred for 1.75 hours. The mixture was added to iced-water (200 ml) and product extracted into dichloromethane (50 ml), dried ($MgSO_4$), and reduced *in vacuo* to a mobile tan oil (0.70 g, 77%). An analytical sample, pre-treated with 10% pyridine in methanol gave HPLC-MS 230.1 $[M + H]^+$, 481.1 $[2M + Na]^+$ (methyl ester).

(ii) Alloc-Leu-F (prepared as above, 47 mg, 0.21 mmol) was dissolved in dimethylformamide (1.5 ml) then added to (*S*)-2-(*N-tert*-butoxycarbonyl-1-hydrazinomethyl)-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(99)** (71 mg, 0.20 mmol) under an atmosphere of nitrogen. The solution was stirred for 19 hours then the solvents were removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 3 : 7 to give (2*S*)-2-[*N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N-tert*-butoxycarbonylhydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(100)** as a sticky white solid (69 mg, 63%). TLC (Single spot, R_f = 0.75, EtOAc : heptane 2 : 1), analytical HPLC broad double peak R_t = 21.214 and 21.483 min; HPLC-MS 445.2 $[M + 2H - Boc]^+$, 489.2 $[M + 2H - Bu]^+$, 545.2 $[M + H]^+$.

Preparation of (2*S*)-2-[*N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N-tert*-butoxy carbonylhydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (101)

Dichloromethane (1.5 ml) followed by phenylsilane (32 µl, 0.26 mmol) were consecutively added with stirring under an atmosphere of nitrogen to a mixture of tetrakistriphenylphosphine palladium(0) (3.0 mg, 0.003 mmol) and (2*S*)-2-[*N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N*-*tert*-butoxycarbonyl hydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(100)** (70 mg, 0.129 mmol). The solution was stirred for 80 minutes then purified by flash chromatography over silica eluting with methanol : dichloromethane mixtures 0 : 100 to 5 : 95 to give (2*S*)-2-[*N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-*tert*-butoxycarbonylhydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(101)** as a colourless oil (57 mg, 96%). TLC (Single spot, R_f = 0.65, MeOH : dichloromethane 1 : 9), analytical HPLC R_t = 16.345 min; HPLC-MS 461.2 $[M + H]^+$, 483.2 $[M + Na]^+$, 921.4 $[2M + H]^+$.

Preparation of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoyl amino)-4-methylpentanoyl]-hydrazinoylmethyl}-2,5-dihydropyrrole-1-carboxylic acid benzyl ester (102)

4-Methylmorpholine (26.6 µl, 0.244 mmol) was added to a solution of HBTU (46 mg, 0.122 mmol), 1-hydroxybenzotriazole monohydrate (18.6 mg, 0.122 mmol) and 4-(*tert*-butyl)benzoic acid (22 mg, 0.122 mmol) in dimethylformamide (1.5 ml). The solution was stood for 5 minutes then added to (2*S*)-2-[*N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-*tert*-butoxycarbonylhydrazinomethyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(101)** (56 mg, 0.122 mmol). The mixture was stirred for 1 hour then the solvents were removed *in vacuo* (water bath temperature < 33 °C). The residue was dissolved in dichloromethane (15 ml) then washed with pH 3 hydrochloric acid (5 ml), saturated aqueous sodium hydrogen carbonate solution (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The yellow residue (108 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 3 : 7 to give (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-hydrazinoylmethyl}-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(102)** as a sticky white solid (63 mg, 84%). TLC (R_f = 0.55, EtOAc :

heptane 1 : 1), analytical HPLC R_t = 24.205 min; HPLC-MS 521.2 [M + 2H - Boc]$^+$, 621.3 [M + H]$^+$.

Preparation of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoyl amino)-4-methylpentanoyl]-hydrazinomethyl}-6-oxa-3-aza-bicyclo[3.1.0]hexane-3-carboxylic acid benzyl ester (103)

A solution of *meta*-chloroperoxybenzoic acid (57-86%, 196 mg, ~0.81 mmol) in dichloromethane (1.2 ml) was added to (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-hydrazinoylmethyl}-2,5-dihydropyrrole -1-carboxylic acid benzyl ester **(102)** (50 mg, 0.081 mmol) under an atmosphere of nitrogen. The solution was stirred for 20 hours then dichloromethane (15 ml) was added and the mixture washed with 5% aqueous sodium hydroxide solution (10 ml), then 10% aqueous sodium hydroxide solution (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 40 : 60 to give (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-hydrazino methyl}-6-oxa-3-aza-bicyclo[3.1.0]hexane-3-carboxylic acid benzyl ester **(103)** as a white solid (39 mg, 75%). TLC (R_f = 0.30, EtOAc : heptane 2 : 3), analytical HPLC R_t = 23.156 min; HPLC-MS 537.2 [M + 2H - Boc]$^+$, 637.2 [M + H]$^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester (104)

A solution of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butyl benzoylamino)-4-methylpentanoyl]-hydrazinomethyl}-6-oxa-3-aza-bicyclo[3.1.0] hexane-3-carboxylic acid benzyl ester **(103)** (38.5 mg, 0.061 mmol) in acetonitrile (4.0 ml) was added to potassium carbonate (210 mg, 1.51 mmol). The suspension was placed under an atmosphere of nitrogen then heated at 60 °C whilst stirring for 4.75 hours before being allowed to cool to ambient temperature. The

suspension was filtered then the filtrate concentrated *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 50 : 50 to give (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester **(104)** as a white solid (16.2 mg, 42%). TLC (R_f = 0.30, EtOAc : heptane 1 : 1), analytical HPLC R_t = 21.762 min; HPLC-MS 537.2 $[M + 2H - Boc]^+$, 581.1 $[M + 2H - Bu]^+$, 637.2 $[M + H]^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester (106)

Under an atmosphere of nitrogen a solution of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester **(104)** (16.0 mg, 0.025 mmol) in ethanol (1.5 ml) was added to 10% palladium on charcoal (10 mg) whilst stirring. The nitrogen was replaced by hydrogen then stirring continued for 30 minutes. The hydrogen was replaced by nitrogen then the mixture filtered through celite. The filter cake was washed with ethanol (40 ml) then the filtrate concentrated *in vacuo*. The residue was used without further purification. Analytical HPLC R_t = 18.568 min; HPLC-MS 403.2 $[M + 2H - Boc]^+$, 503.2 $[M + H]^+$ for (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester **(105)**.

Benzoic anhydride (6.0 mg, 0.026 mmol), dimethylformamide (0.3 ml) then 4-methylmorpholine (5.8 µl, 0.053 mmol) were added consecutively to (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexa hydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(105)** (~0.025 mmol, prepared as above). The solution was stirred for 65 minutes then the majority of solvents were removed *in vacuo*. The residue was dissolved in ethyl

acetate (10 ml), then washed with saturated aqueous sodium hydrogen carbonate solution (5 ml), pH 3 hydrochloric acid (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue (15.5 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 5 : 95 to 50 : 50 to give (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexa hydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(106)** as a white solid (10.3 mg, 68%). TLC (R_f = 0.25, EtOAc : heptane 1 : 1), analytical HPLC R_t = 22.101 min; HPLC-MS 278.1, 507.2 [M + 2H - Boc]$^+$, 607.2 [M + H]$^+$.

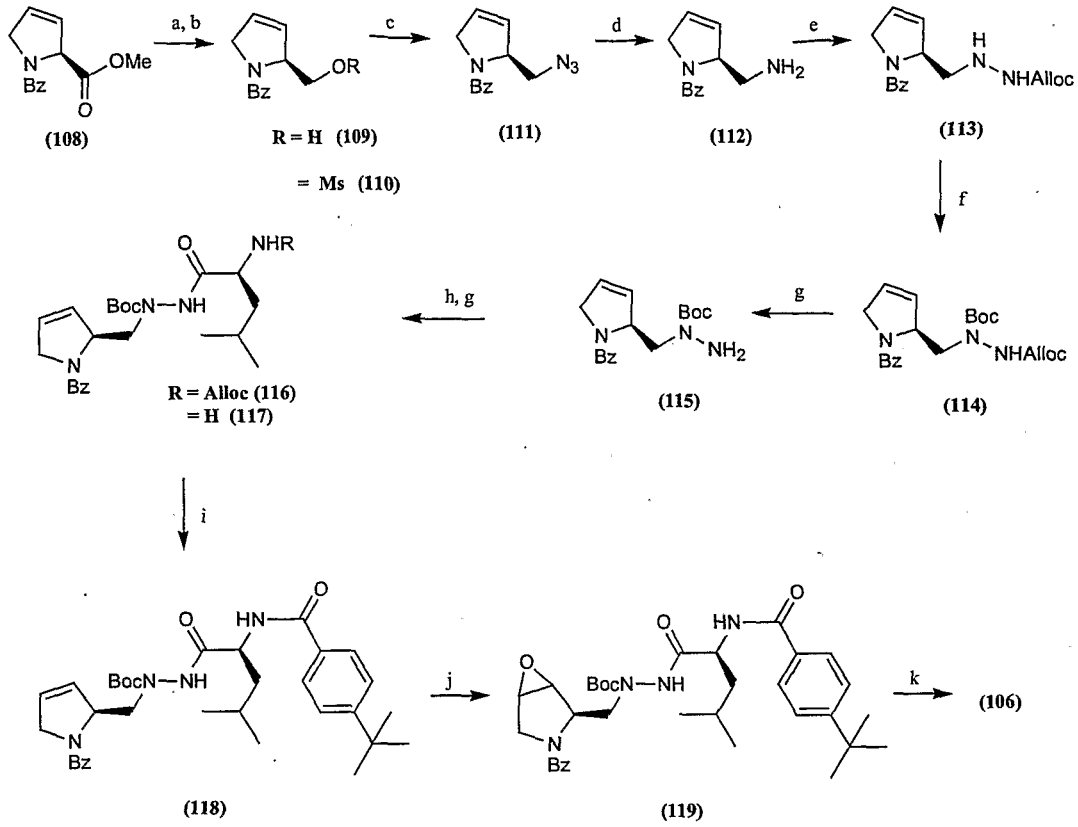
Preparation of (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester (107)

A solution of Dess-Martin periodinane (54 mg, 0.128 mmol) in dichloromethane (1.25 ml) was added to (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester **(106)** (15.5 mg, 0.026 mmol) under an atmosphere of nitrogen. The mixture was stirred for 4.5 hours then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 2 : 3 to give (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(107)** as a white solid (12.8 mg, 81%). TLC (R_f = 0.65, EtOAc : heptane 3 : 2), analytical HPLC broad peak R_t = 21.02-23.60 min; HPLC-MS single broad main UV peak 274.1, 505.2 [M + 2H - Boc]$^+$, 549.1 [M + 2H - Bu]$^+$, 605.2 [M + H]$^+$, 623.2 [M + H_2O + H]$^+$, 627.2 [M + Na]$^+$, 645.2 [M + H_2O + Na]$^+$.

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*c*] pyrazole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide (EXAMPLE 249a)

Trifluoroacetic acid (0.15 ml) was added to (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester **(107)** (10.3 mg, 0.017 mmol) under an atmosphere of nitrogen. The solution was stirred for 45 minutes then cautiously added to saturated aqueous sodium hydrogen carbonate solution (10 ml). The product was extracted into dichloromethane (10 ml) then washed with water (10 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue (10 mg) was combined with a second batch of material (0.8 mg, prepared in a similar way to above from 1.14 mg of (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butyl benzoylamino)-4-methylpentanoyl]-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(107)**, then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 20 : 80 to 65 : 35 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide (EXAMPLE 249a) as an off-white solid (3.49 mg, 37 %), together with recovered (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole -2-carboxylic acid *tert*-butyl ester **(107)** (1.83 mg, 16%). Data for (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-1-carbonyl)-3-methyl butyl]-4-*tert*-butylbenzamide (EXAMPLE 249a), TLC (R_f = 0.26, EtOAc : heptane 3 : 1), analytical HPLC broad peak R_t = 18.10-19.70 min; HPLC-MS single broad main UV peak 274.1, 505.1 $[M + H]^+$, 523.2 $[M + H_2O + H]^+$.

An alternative preparation of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole -2-carboxylic acid *tert*-butyl ester **(106)** is detailed in Scheme 24.



Scheme 24. (a) $LiBH_4$, MeOH, THF (b) Methanesulfonyl chloride, triethylamine, DCM (c) Sodium azide, DMF, 110°C (d) Ph_3P / H_2O, 1,4-dioxane, 50°C (e) 3-Phenyloxaziridine-2-carboxylic acid allyl ester, DCM (f) $(Boc)_2O$, DCM, 60°C (g) $Pd(PPh_3)_4$, $PhSiH_3$, DCM (h) Alloc-Leu-F, DMF (i) 4-*tert*-Butylbenzoic acid, HBTU, HOBT, NMM, DMF (j) *m*-Chloroperoxybenzoic acid, DCM. (k) Potassium carbonate, CH_3CN, 60°C

Preparation of (*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrole-2-carboxylic acid 1-methyl ester (108)

Benzoic anhydride (4.15 g, 18.3 mmol) followed by 4-methylmorpholine (2.82 ml, 25.7 mmol) were consecutively added to a stirred solution of (*S*)-2,5-dihydro-1*H*-pyrrole-2-carboxylic acid methyl ester hydrochloride (2.0 g, 12.2 mmol) in DMF (50 ml). The mixture was stirred for 1.5 hours then the solvents were removed *in vacuo*. The product was extracted into *tert*-butyl methyl ether (300 ml) then washed with 5% hydrochloric acid (100 ml), 5% aqueous sodium hydrogen carbonate solution (100 ml), and brine (100 ml), dried ($MgSO_4$), and the solvents

removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane 1 : 4 to give (*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrole-2-carboxylic acid 1-methyl ester **(108)** as a colourless oil (2.05 g, 73%). TLC (R_f = 0.25, EtOAc : heptane 1 : 1); HPLC-MS 232.1, $[M + H]^+$, 254.0 $[M + Na]^+$, 485.1 $[2M + Na]^+$; δ_H (500 MHz, $CDCl_3$) 3.78 (3H, s, OCH_3), 4.15-4.22 (1H, m, H-5), 4.41-4.47 (1H, m, H-5), 5.45-5.49 (1H, m, H-2), 5.83-5.95 (2H, m, H-3 and H-4), 7.36-7.58 (5H, aromatics); δ_C (125 MHz, $CDCl_3$) 52.50 ($O\underline{C}H_3$), 55.90 (C-5), 66.39 (C-2), 124.89, 127.01, 128.39, 128.41, 128.60 and 130.24 (C-3, C-4 and aromatic $\underline{C}H$), 135.86 (aromatic quaternary), 169.73 and 170.16 ($CH\underline{C}$=O and N$\underline{C}$=OPh).

Preparation of (*S*)-(2-hydroxymethyl-2,5-dihydropyrrole-1-yl)phenyl methanone (109)

Methanol (0.71 ml) followed by a solution of (*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrole-2-carboxylic acid 1-methyl ester **(108)** (2.05 g, 8.9 mmol) in THF (37 ml) were added dropwise to a stirred suspension of lithium borohydride (390 mg, 17.7 mmol) in THF (13 ml). The mixture was stirred for 1 hour then water (5 ml) was carefully added. The product was extracted into *tert*-butyl methyl ether (3 x 50 ml), then the combined organic layers dried ($MgSO_4$), and the solvents removed *in vacuo* to give (*S*)-(2-hydroxymethyl-2,5-dihydropyrrole-1-yl)phenylmethanone **(109)** as a pale yellow oil (1.68 g, 93%) which was used without further purification. TLC (R_f = 0.1, EtOAc : heptane 1 : 1), HPLC-MS 204.1 $[M + H]^+$; d_H (500 MHz, $CDCl_3$) 1.65-1.95 (1H, br. s, $CH_2O\underline{H}$), 3.72 (1H, dd J = 11.4 and 7.1 Hz, $C\underline{H}_2OH$), 3.90 (1H, dd J = 11.6 and 2.1 Hz, $C\underline{H}_2OH$), 4.11-4.16 (1H, m, H-5), 4.27-4.38 (1H, m, H-5), 5.17-5.21 (1H, m, H-2), 5.74-5.82 (2H, m, H-3 and H-4), 7.38-7.53 (5H, aromatics); d_C (125 MHz, $CDCl_3$) 56.76 (C-5), 66.44 ($\underline{C}H_2OH$), 68.68 (C-2), 126.25, 126.67, 126.93, 126.95, 128.50 and 130.20 (C-3, C-4 and aromatic $\underline{C}H$), 136.21 (aromatic quaternary), 172.12 (N$\underline{C}$=OPh).

Preparation of (*S*)-methanesulfonic acid 1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl ester (110)

Triethylamine (1.86 ml, 13.2 mmol) was added dropwise to a stirred solution of (*S*)-(2-hydroxymethyl-2,5-dihydropyrrole-1-yl)phenylmethanone **(109)** (1.68 g, 8.3 mmol) and methanesulfonyl chloride (0.96 ml, 12.4 mmol) in dichloromethane (30 ml) at 0 °C. The mixture was stirred for 30 minutes at ambient temperature then washed with water (100 ml), and brine (100 ml), dried (Na_2SO_4), and the solvents removed *in vacuo* to give (*S*)-methanesulfonic acid 1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl ester **(110)** as a pale yellow oil (1.88 g, 81%) which was used without further purification. HPLC-MS 282.0 $[M + H]^+$, 585.1 $[2M + Na]^+$.

Preparation of (*S*)-(2-azidomethyl-2,5-dihydropyrrol-1-yl)phenylmethanone (111)

Sodium azide (2.17 g, 33.4 mmol) was added to a stirred solution of (*S*)-methanesulfonic acid 1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl ester **(110)** (1.88 g, 6.68 mmol) in DMF (50 ml). The reaction mixture was stirred at 110 °C for 1 hour. The solvent was removed *in vacuo* then the product was extracted into ethyl acetate (100 ml), washed with water (100 ml) and brine (100 ml), dried ($MgSO_4$), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with heptane : ethyl acetate 9 : 1 to give (*S*)-(2-azidomethyl-2,5-dihydropyrrol-1-yl)phenylmethanone **(111)** as a pale yellow oil (0.96 g, 63%). TLC (R_f = 0.40, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 13.943 min, HPLC-MS 229.1 $[M + H]^+$, 251.1 $[M + Na]^+$, 479.1 $[2M + Na]^+$.

Preparation of (*S*)-(2-aminomethyl-2,5-dihydro-pyrrol-1-yl)phenyl methanone (112)

Triphenylphosphine (1.65 g, 6.30 mmol) was added to a stirred solution of (*S*)-(2-azidomethyl-2,5-dihydropyrrol-1-yl)phenylmethanone **(111)** (0.96 g, 4.2 mmol) in THF (87 ml) containing water (1 ml). The mixture was stirred at 50 °C for 24 hours then the solvents were removed *in vacuo*. The residue was purified by flash

chromatography over silica eluting with ethyl acetate : heptane 1 : 9 then ethyl acetate : methanol 4 : 1 mixtures to give (*S*)-(2-aminomethyl-2,5-dihydro-pyrrol-1-yl)phenylmethanone **(112)** as a pale yellow oil (0.77 g, 91%). TLC (R_f = 0.1, chloroform : methanol 9 : 1), analytical HPLC with UV peaks at R_t = 6.705 and 7.943 min; HPLC-MS 203.1 $[M + H]^+$, 427.1 $[2M + Na]^+$. d_H (500 MHz, D_6-DMSO) 1.30-2.10 (2H, br. s, CH_2NH_2), 2.84 (2H, m, CH_2NH_2), 3.87 (1H, dd, J = 14.9 and 1.0 Hz, H-5), 4.26-4.35 (1H, m, H-5), 4.84 (1H, m, H-2), 5.83-6.03 (2H, m, H-4 and H-5), 7.39-7.58 (5H, aromatics); d_C (125 MHz, D_6-DMSO) 44.25 ($\underline{C}H_2NH_2$), 56.96 (C-5), 67.20 (C-2), 126.50, 126.62, 126.83, 127.51, 128.63, 128.84, 128.96, 129.52, 129.81 and 130.22 (C-3, C-4 and aromatic $\underline{C}H$), 137.48 (aromatic quaternary), 169.44 ($N\underline{C}$=O).

Preparation of (*S*)-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazine carboxylic acid allyl ester (113)

3-Phenyloxaziridine-2-carboxylic acid allyl ester (prepared as above, 1.95 g, 9.5 mmol) was added to a stirred solution of (*S*)-(2-aminomethyl-2,5-dihydro-pyrrol-1-yl)phenylmethanone **(112)** (0.64 g, 3.17 mmol) in dichloromethane (10 ml). The mixture was stirred for 16 hours then the solvents were removed *in vacuo*. The oily residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 4 to give (*S*)-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazinecarboxylic acid allyl ester **(113)** as a pale yellow oil (0.26 g, 27%). TLC (R_f = 0.45, heptane : ethyl acetate 1 : 1), HPLC-MS 302.1 $[M + H]^+$, 324.1 $[M + Na]^+$, 625.1 $[2M + Na]^+$.

Preparation of (*S*)-*N'*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-*tert*-butoxycarbonyl-hydrazinecarboxylic acid allyl ester (114)

Three portions of Boc anhydride (each 1.84 g, 8.1 mmol) were added at one hour intervals to a stirred solution of (*S*)-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazinecarboxylic acid allyl ester **(113)** (0.26 g, 0.85 mmol) in triethylamine : methanol (1 : 9, 10 ml). The mixture was stirred at 60 °C for 3

hours then the solvents were removed *in vacuo*. The oily residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 1 to 1 : 4 to give (*S*)-*N'*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-*tert*-butoxycarbonyl-hydrazinecarboxylic acid allyl ester **(114)** as a pale yellow oil (96 mg, 28%). TLC (R_f = 0.25, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 6.025 min; HPLC-MS 402.1 $[M + H]^+$, 825.1 $[2M + Na]^+$.

Preparation of (*S*)-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazine carboxylic acid *tert*-butyl ester (115)

Tetrakis(triphenylphosphine)palladium(0) (7.5 mg, 0.0065mmol) was added to a stirred solution of (*S*)-*N'*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-*tert*-butoxycarbonyl-hydrazinecarboxylic acid allyl ester **(114)** (131 mg, 0.326 mmol) in dichloromethane (5 ml) under an atmosphere of argon. Phenylsilane (81 µl, 0.65 mmol) was then added dropwise over two minutes. The solution was stirred for 1 hour then the solvents were removed *in vacuo*. The oily residue was purified by flash chromatography over silica eluting with heptane : *tert*-butyl methyl ether 9 : 1 to 0 : 1 mixtures to give (*S*)-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazine carboxylic acid *tert*-butyl ester **(115)** as a brown oil (77 mg, 74%). TLC (R_f = 0.35, heptane : ethyl acetate 1 : 1), analytical HPLC R_t = 12.738 min; HPLC-MS 218.1 $[M + 2H - Boc]^+$, 262.1 $[M + 2H - Bu]^+$, 318.1 $[M + H]^+$, 635.3 $[2M + H]^+$, 657.2 $[2M + Na]^+$.

Preparation of *N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazinecarboxylic acid *tert*-butyl ester (116)

Alloc-Leu-F (prepared as above, 55 mg, 0.26 mmol) was added to a stirred solution of (S)-2-*N*-(1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazine carboxylic acid *tert*-butyl ester **(115)** (77 mg, 0.24 mmol) in dimethylformamide (1.5 ml) under an atmosphere of nitrogen. The solution was stirred for 4.5 hours then the solvents were removed *in vacuo*. The residue was purified by flash

chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 2 : 3 to give *N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol -2-ylmethyl)hydrazinecarboxylic acid *tert*-butyl ester **(116)** as a viscous oil (83 mg, 67%). TLC (Single spot, R_f = 0.45, EtOAc : heptane 1 : 1), analytical HPLC R_t = 19.157 min; HPLC-MS 415.1 $[M + 2H - Boc]^+$, 459.1 $[M + 2H - Bu]^+$, 515.2 $[M + H]^+$.

Preparation of *N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)hydrazinecarboxylic acid *tert*-butyl ester (117)

Dichloromethane (1.5 ml) followed by phenylsilane (39 µl, 0.32 mmol) were consecutively added with stirring under an atmosphere of nitrogen to a mixture of tetrakistriphenylphosphine palladium(0) (3.7 mg, 0.003 mmol) and *N'*-((2*S*)-2-allyloxycarbonylamino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol -2-ylmethyl)hydrazinecarboxylic acid *tert*-butyl ester **(116)** (82 mg, 0.16 mmol). The solution was stirred for 1.75 hours then purified by flash chromatography over silica eluting with methanol : dichloromethane mixtures 1 : 99 to 5 : 95 to give *N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl) hydrazinecarboxylic acid *tert*-butyl ester **(117)** as a colourless oil (57 mg, 83%). TLC (Single spot, R_f = 0.45, MeOH : dichloromethane 6 : 94), analytical HPLC R_t = 14.217 min; HPLC-MS 431.1 $[M + H]^+$, 861.3 $[2M + H]^+$, 883.3 $[2M + Na]^+$.

Preparation of *N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazinecarboxylic acid *tert*-butyl ester (118)

4-Methylmorpholine (28.5 µl, 0.26 mmol) was added to a solution of HBTU (49 mg, 0.13 mmol), 1-hydroxybenzotriazole monohydrate (20 mg, 0.13 mmol) and 4-(*tert*-butyl)benzoic acid (23 mg, 0.13 mmol) in dimethylformamide (1.5 ml). The solution was stood for 5 minutes then added to *N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)

hydrazine carboxylic acid *tert*-butyl ester **(117)** (56 mg, 0.13 mmol). The mixture was stirred for 1.5 hour then the solvents were removed *in vacuo* (water bath temperature < 33 °C). The residue was dissolved in dichloromethane (15 ml) then washed with pH 3 hydrochloric acid (5 ml), saturated aqueous sodium hydrogen carbonate solution (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The yellow residue (102 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 1 to give *N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazinecarboxylic acid *tert*-butyl ester **(118)** as a white solid (52 mg, 68%). TLC (R_f = 0.46, EtOAc : heptane 1 : 1), analytical HPLC R_t = 22.310 min; HPLC-MS 491.2 $[M + 2H - Boc]^+$, 591.2 $[M + H]^+$.

Preparation of *N*-((2*S*)-3-benzoyl-6-oxa-3-aza-bicyclo[3.1.0]hex-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazine carboxylic acid *tert*-butyl ester (119)

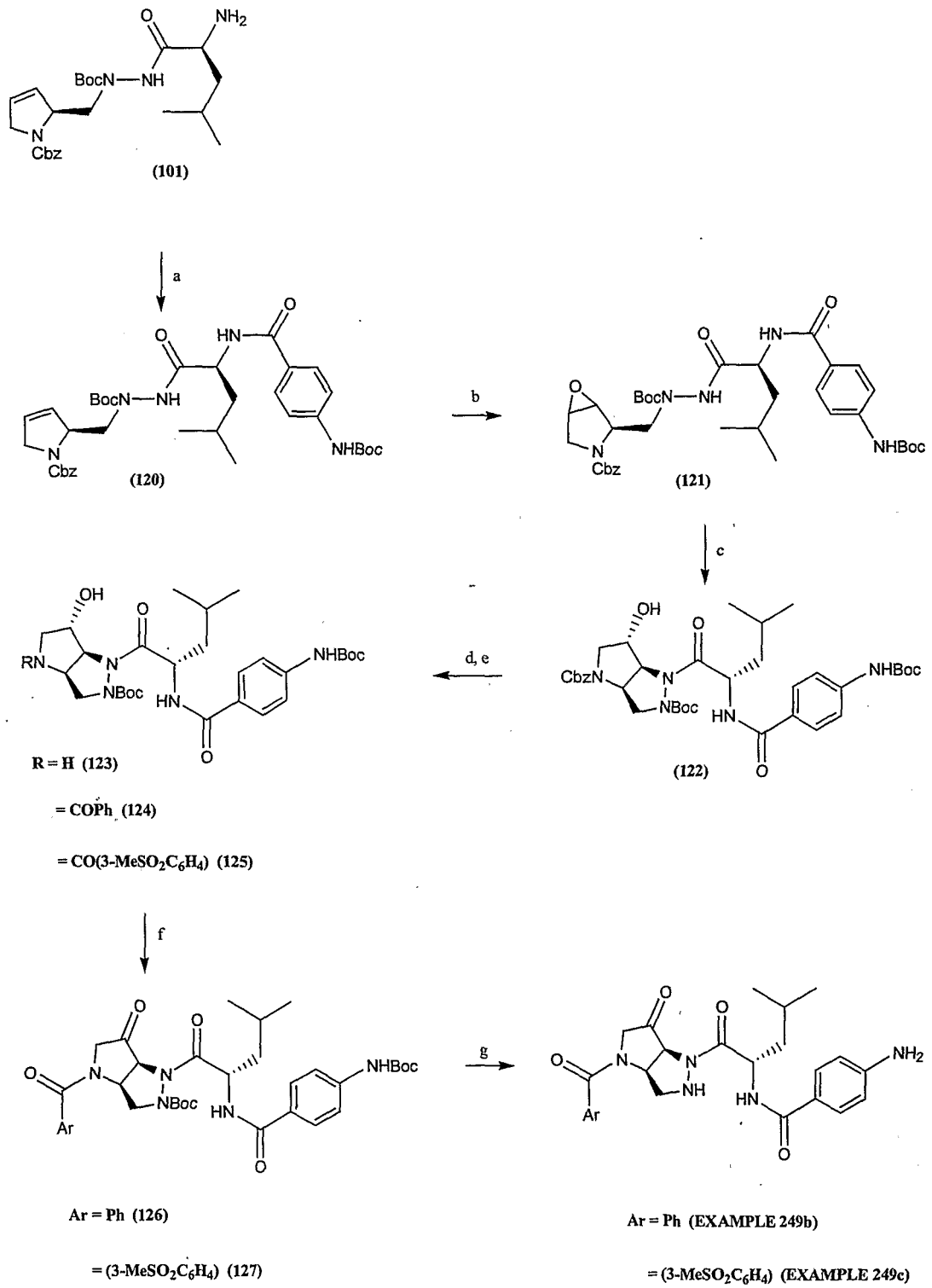
A solution of *meta*-chloroperoxybenzoic acid (57-86%, 210 mg, ~0.86 mmol) in dichloromethane (1.25 ml) was added to *N*-((2*S*)-1-benzoyl-2,5-dihydro-1*H*-pyrrol-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazine carboxylic acid *tert*-butyl ester **(118)** (51 mg, 0.086 mmol) under an atmosphere of nitrogen. The solution was stirred for 20 hours then dichloromethane (15 ml) was added and the mixture washed with 10% aqueous sodium hydroxide solution (10 ml). The aqueous layer was extracted with dichloromethane (5 ml) then the combined organic layers washed with 10% aqueous sodium hydroxide solution (10 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The yellow oily residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 1 to give *N*-((2*S*)-3-benzoyl-6-oxa-3-aza-bicyclo[3.1.0]hex-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazinecarboxylic acid *tert*-butyl ester **(119)** as a white solid (27.5 mg, 52%). TLC (R_f = 0.25, EtOAc : heptane 1 : 1),

analytical HPLC R_t = 21.769 min; HPLC-MS 507.2 [M + 2H - Boc]$^+$, 607.2 [M + H]$^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester (106)

A solution of *N*-((2*S*)-3-benzoyl-6-oxa-3-aza-bicyclo[3.1.0]hex-2-ylmethyl)-*N'*-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]hydrazinecarboxylic acid *tert*-butyl ester **(119)** (26 mg, 0.043 mmol) in acetonitrile (2.5 ml) was added to potassium carbonate (150 mg, 1.09 mmol). The suspension was placed under an atmosphere of nitrogen then heated at 60 °C whilst stirring for 3.25 hours before being allowed to cool to ambient temperature. The suspension was filtered and the collected solid washed with acetonitrile (20 ml), then the filtrate was concentrated *in vacuo*. The residue was dissolved in dichloromethane (15 ml), washed with water (10 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 4 to 1 : 1 to give (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester **(106)** as a white solid (16.2 mg, 62%). TLC (R_f = 0.30, EtOAc : heptane 3 : 2), analytical HPLC R_t = 22.013 min; HPLC-MS 278.1, 507.2 [M + 2H - Boc]$^+$, 607.2 [M + H]$^+$.

EXAMPLES 249b and 249c were prepared from the intermediate (2*S*)-2-[*N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-*tert*-butoxycarbonylhydrazinomethyl]-2,5-dihydro pyrrole-1-carboxylic acid benzyl ester **(101)** following Scheme 25;



Scheme 25. (a) 4-*tert*-Butoxycarbonylaminobenzoic acid, HBTU, HOBT, NMM, DMF (b) *m*-Chloroperoxybenzoic acid, DCM. (c) Potassium carbonate, CH_3CN, 60°C (d) Pd-C, H_2, ethanol (e) $(PhCO)_2O$, DMF or HBTU, HOBT, NMM, DMF, 3-(methylsulfonyl)benzoic acid (f) Dess-Martin periodinane, DCM (g) TFA, DCM

Preparation of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-hydrazinoyl methyl}-2,5-dihydro pyrrole-1-carboxylic acid benzyl ester (120)

4-Methylmorpholine (44.7 µl, 0.407 mmol) was added to a solution of HBTU (77 mg, 0.204 mmol), 1-hydroxybenzotriazole monohydrate (31 mg, 0.204 mmol) and 4-(*tert*-butoxycarbonylamino)benzoic acid (48 mg, 0.204 mmol) in dimethylformamide (2.0 ml). The solution was stood for 5 minutes then added to (2*S*)-2-[*N'*-((2*S*)-2-amino-4-methylpentanoyl)-*N*-*tert*-butoxycarbonylhydrazino methyl]-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(101)** (94 mg, 0.204 mmol). The mixture was stirred for 1 hour 35 minutes then the solvents were removed *in vacuo* (water bath temperature < 37 °C). The residue was dissolved in dichloromethane (15 ml) then washed with pH 3 hydrochloric acid (5 ml), saturated aqueous sodium hydrogen carbonate solution (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue (166 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 4 : 6 to give (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-hydrazinoylmethyl}-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(120)** as a white solid (116 mg, 84%). TLC (R_f = 0.48, EtOAc : heptane 1 : 1), analytical HPLC R_t = 22.296 min; HPLC-MS 580.4 $[M + 2H - Boc]^+$, 680.4 $[M + H]^+$.

Preparation of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxy carbonylaminobenzoylamino)-4-methylpentanoyl]-hydrazinomethyl}-6-oxa-3-aza-bicyclo [3.1.0]hexane-3-carboxylic acid benzyl ester (121)

A solution of *meta*-chloroperoxybenzoic acid (57-86%, 411 mg, ~1.7 mmol) in dichloromethane (2.5 ml) was added to (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-hydrazinoyl methyl}-2,5-dihydropyrrole-1-carboxylic acid benzyl ester **(120)** (115 mg, 0.169 mmol) under an atmosphere of nitrogen. The solution was stirred for 20 hours

then dichloromethane (15 ml) was added and the solution twice washed with a mixture of water (5 ml) and aqueous saturated sodium hydrogen carbonate solution (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue (127 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 9 to 1 : 1 to give (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-hydrazinomethyl}-6-oxa-3-aza-bicyclo[3.1.0] hexane-3-carboxylic acid benzyl ester **(121)** as a white solid (63.7 mg, 54%). TLC (R_f = 0.25, EtOAc : heptane 1 : 1), analytical HPLC R_t = 21.723 min; HPLC-MS 596.4 $[M + 2H - Boc]^+$, 696.4 $[M + H]^+$, 718.4 $[M + Na]^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylamino benzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester (122)

A solution of (2*S*)-2-{*N*-*tert*-butoxycarbonyl-*N'*-[(2*S*)-2-(4-*tert*-butoxycarbonyl aminobenzoylamino)-4-methylpentanoyl]-hydrazinomethyl}-6-oxa-3-aza-bicyclo [3.1.0]hexane-3-carboxylic acid benzyl ester **(121)** (62.2 mg, 0.090 mmol) in acetonitrile (3.0 ml) was added to potassium carbonate (300 mg, 2.17 mmol). The suspension was placed under an atmosphere of nitrogen then heated at 60 °C whilst stirring for 3 hours before being allowed to cool to ambient temperature. The suspension was filtered then the filtrate concentrated *in vacuo*. The product was extracted into dichloromethane (15 ml) then washed with water (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 4 to 3 : 2 to give (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester **(122)** as a white solid (36.7 mg, 59%). TLC (R_f = 0.28, EtOAc : heptane 1 : 1), analytical HPLC R_t = 22.528 min; HPLC-MS 333.3, 596.4 $[M + 2H - Boc]^+$, 640.4 $[M + 2H - Bu]^+$, 696.4 $[M + H]^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylamino benzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester (123)

Under an atmosphere of nitrogen ethanol (2.6 ml) was added to a mixture of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methyl pentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*]pyrazole-2,4-dicarboxylic acid 4-benzyl ester 2-*tert*-butyl ester **(122)** (35.2 mg, 0.051 mmol) and 10% palladium on charcoal (20 mg) whilst stirring. The nitrogen was replaced by hydrogen then stirring continued for 1 hour. The hydrogen was replaced by nitrogen then the mixture filtered through celite. The filter cake was washed with ethanol (20 ml) then the filtrate concentrated *in vacuo*. The residue (28.3 mg, 100%) was used without further purification. Analytical HPLC R_t = 17.437 min; HPLC-MS 462.3 $[M + 2H - Boc]^+$, 562.4 $[M + H]^+$ for (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(123)**.

Preparation of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonyl aminobenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester (124)

Benzoic anhydride (5.3 mg, 0.024 mmol), dimethylformamide (0.275 ml) then 4-methylmorpholine (5.2 µl, 0.047 mmol) were added consecutively to (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-hydroxy hexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(123)** (12.6 mg, 0.0225 mmol, prepared as above). The solution was stirred for 90 minutes then the majority of solvents were removed *in vacuo*. The residue was dissolved in ethyl acetate (10 ml), then washed with saturated aqueous sodium hydrogen carbonate solution (5 ml), pH 3 hydrochloric acid (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The solid white residue (15.4 mg, 100%) was used without further purification. Data for (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methyl

pentanoyl]-6-hydroxyhexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(124)**: TLC (R_f = 0.25, EtOAc : heptane 2 : 1), analytical HPLC R_t = 20.787 min; HPLC-MS 333.3, 566.4 $[M + 2H - Boc]^+$, 666.4 $[M + H]^+$.

Preparation of (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonylamino benzoylamino)-4-methylpentanoyl]-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester (126)

A solution of Dess-Martin periodinane (48 mg, 0.113 mmol) in dichloromethane (1.1 ml) was added to (3a*R*, 6*S*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonyl aminobenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydropyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester **(124)** (15.4 mg, 0.0225 mmol, prepared as above) under an atmosphere of nitrogen. The mixture was stirred for 3 hours then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 1 : 4 to 1 : 1 to give (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(126)** as an off-white solid (9.7 mg, 65%). TLC (R_f = 0.28, EtOAc : heptane 2 : 1), analytical HPLC broad peak R_t = 20.05-22.80 min; HPLC-MS single broad main UV peak 333.2, 664.4 $[M + H]^+$, 682.4 $[M + H_2O + H]^+$.

Preparation of (3a*R*, 6a*S*)-4-amino-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydro pyrrolo[3,2-*c*]pyrazole-1-carbonyl)-3-methylbutyl]benzamide (EXAMPLE 249b)

Trifluoroacetic acid (0.05 ml) was added to (3a*R*, 6a*S*)-4-benzoyl-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-oxo-hexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(126)** (6.4 mg, 9.7 μmol) under an atmosphere of nitrogen. The solution was stirred for 2.5 hours then diluted with dichloromethane (1 ml) and cautiously added to saturated aqueous sodium hydrogen carbonate solution (1 ml). The dichloromethane was separated then washed with water (1 ml). The saturated aqueous sodium hydrogen carbonate

solution was extracted with dichloromethane (0.5 ml) which was then washed with the water layer. The combined organic layers were dried (Na_2SO_4), and the solvents removed *in vacuo* to obtain (3a*R*, 6a*S*)-4-amino-*N*-[1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-1-carbonyl)-3-methylbutyl]benzamide (EXAMPLE 249b) as a red solid (0.72 mg, 16%). Analytical HPLC broad peak R_t = 11.0-12.1 min; HPLC-MS broad UV peak 464.2 $[M + H]^+$, 482.4 $[M + H_2O + H]^+$, 949.3 $[2M + Na]^+$, 967.4 $[2M + H_2O + Na]^+$, 985.3 $[2M + 2H_2O + Na]^+$.

Preparation of (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonyl aminobenzoy lamino)-4-methylpentanoyl]-6-hydroxy-4-(3-methanesulfonyl benzoyl)hexa hydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester (125)

4-Methylmorpholine (5.7 µl, 0.052 mmol) was added to a solution of HBTU (9.9 mg, 0.026 mmol), 1-hydroxybenzotriazole monohydrate (4.0 mg, 0.026 mmol) and 3-(methylsulfonyl)benzoic acid (5.2 mg, 0.026 mmol) in dimethylformamide (0.3 ml). The solution was stood for 5 minutes then added to (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-hydroxyhexahydro pyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(123)** (14.7 mg, 0.026 mmol, prepared as above). The mixture was stirred for 2.5 hour then the solvents were removed *in vacuo* (water bath temperature < 37 °C). The residue was dissolved in dichloromethane (10 ml) then washed with pH 3 hydrochloric acid (5 ml), saturated aqueous sodium hydrogen carbonate solution (5 ml) and brine (5 ml), dried (Na_2SO_4), and the solvents removed *in vacuo*. The pale yellow solid residue (19.7 mg, 100%) was used without further purification. Data for (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-6-hydroxy-4-(3-methanesulfonylbenzoyl)hexahydropyrrolo [3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(125)**: TLC (R_f = 0.05, EtOAc : heptane 2 : 1), analytical HPLC R_t = 19.945 min; HPLC-MS 333.3, 644.3 $[M + 2H - Boc]^+$, 688.3 $[M + 2H - Bu]^+$, 744.3 $[M + H]^+$, 766.3 $[M + Na]^+$.

Preparation of (3a*R*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoyl amino)-4-methylpentanoyl]-4-(3-methanesulfonylbenzoyl)-6-oxohexahydro pyrrolo[3,2-*c*] pyrazole-2-carboxylic acid *tert*-butyl ester (127)

A solution of Dess-Martin periodinane (56 mg, 0.132 mmol) in dichloromethane (1.25 ml) was added to (3a*R*, 6*S*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylamino benzoylamino)-4-methylpentanoyl]-6-hydroxy-4-(3-methanesulfonylbenzoyl) hexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(125)** (19.7 mg, 0.0262 mmol, prepared as above) under an atmosphere of nitrogen. The mixture was stirred for 4 hours then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 3 : 7 to 4 : 1 to give (3a*R*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-4-(3-methanesulfonylbenzoyl)-6-oxohexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(127)** as an off-white solid (11.1 mg, 57%). TLC (R_f = 0.10, EtOAc : heptane 2 : 1), analytical HPLC broad peak R_t = 19.20-21.70 min; HPLC-MS single broad main UV peak 333.2, 642.3 $[M + 2H - Boc]^+$, 660.3 $[M + 2H + H_2O - Boc]^+$, 686.3 $[M + 2H - Bu]^+$, 704.2 $[M + 2H + H_2O - Bu]^+$, 742.3 $[M + H]^+$, 760.3 $[M + H_2O + H]^+$.

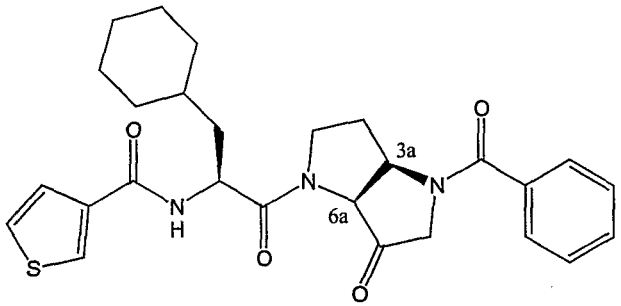
Preparation of (3a*R*, 6a*S*)-4-amino-*N*-{(1*S*)-1-[4-(3-methanesulfonylbenzoyl)-6-oxo-hexahydropyrrolo[3,2-*c*]pyrazole-1-carbonyl]-3-methylbutyl} benzamide (EXAMPLE 249c)

Trifluoroacetic acid (0.05 ml) was added to (3a*R*, 6a*S*)-1-[(2*S*)-2-(4-*tert*-butoxycarbonylaminobenzoylamino)-4-methylpentanoyl]-4-(3-methanesulfonyl benzoyl)-6-oxohexahydropyrrolo[3,2-*c*]pyrazole-2-carboxylic acid *tert*-butyl ester **(127)** (4.93 mg, 6.7 μmol) under an atmosphere of nitrogen. The solution was stirred for 2.5 hours then diluted with dichloromethane (1 ml) and cautiously added to saturated aqueous sodium hydrogen carbonate solution (1 ml). The dichloromethane was separated then washed with water (1 ml). The saturated aqueous sodium hydrogen carbonate solution was extracted with dichloromethane (0.5 ml) which was then washed with the water layer. The combined organic

layers were dried (Na_2SO_4), and the solvents removed *in vacuo* to obtain (3a*R*, 6a*S*)-4-amino-*N*-{(1*S*)-1-[4-(3-methanesulfonylbenzoyl)-6-oxo-hexahydropyrrolo [3,2-*c*]pyrazole-1-carbonyl]-3-methylbutyl}benzamide (EXAMPLE 249c) as a red solid (0.66 mg, 18%). Analytical HPLC broad peak R_t = 10.2-11.4 min; HPLC-MS broad UV peak 233.1, 542.2 $[M + H]^+$, 560.2 $[M + H_2O + H]^+$.

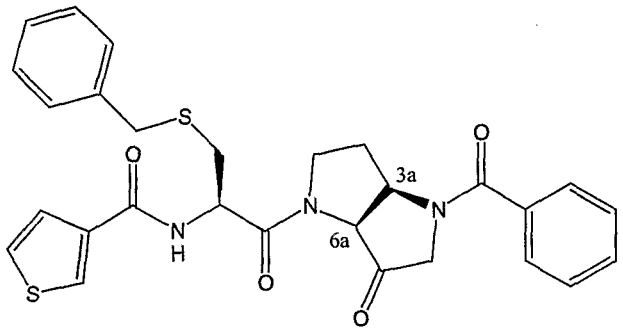
EXAMPLES 250 to 295 were prepared as detailed for EXAMPLES 1 and 119, substituting the appropriate carboxylic acids as required and are inhibitors of cathepsin S with Ki ranging from 10-5000nM;

EXAMPLE 250. (3*aR*, 6*aS*)-Thiophene-3-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



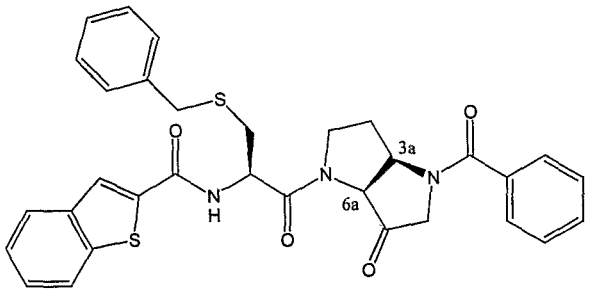
HPLC Rt = 16.4-17.2 mins (> 90%), HPLC-MS 494.2 $[M + H]^+$, 1009.4 $[2M + Na]^+$.

EXAMPLE 251. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



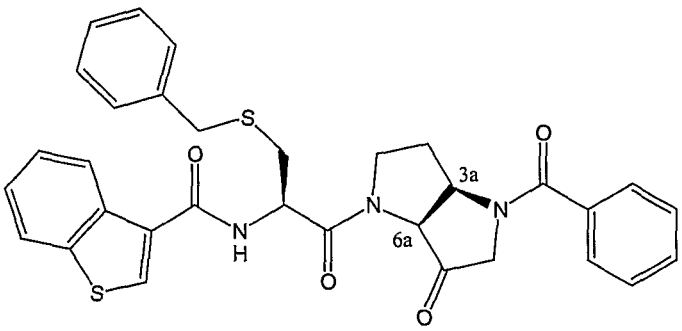
HPLC Rt = 14.78 mins (> 90%), HPLC-MS 534.1 $[M + H]^+$.

EXAMPLE 252. (3a*R*, 6a*S*)-Benzo[*b*]thiophene-2-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



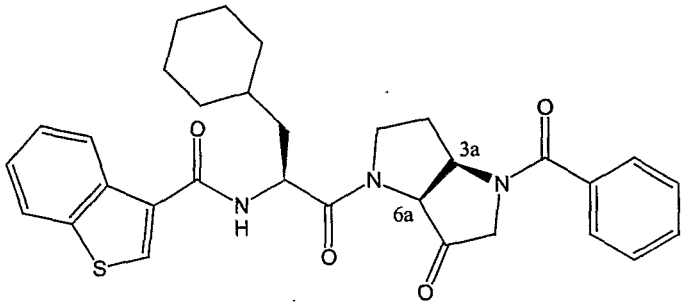
HPLC Rt = 18.5-19.8 mins (> 85%), HPLC-MS 584.1 $[M + H]^+$.

EXAMPLE 253. (3a*R*, 6a*S*)-Benzo[*b*]thiophene-3-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



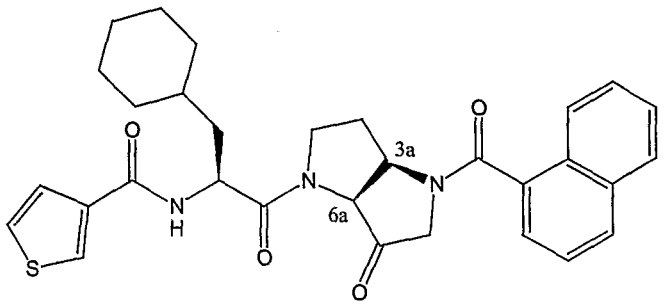
HPLC Rt = 17.8-19.0 mins (> 80%), HPLC-MS 584.2 $[M + H]^+$.

EXAMPLE 254. (3a*R*, 6a*S*)-Benzo[*b*]thiophene-3-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



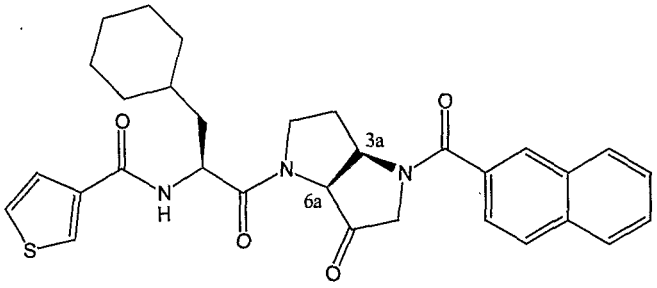
HPLC Rt = 19.5-20.5 mins (> 75%), HPLC-MS 544.1 $[M + H]^+$.

EXAMPLE 255. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-[4-(naphthalene-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



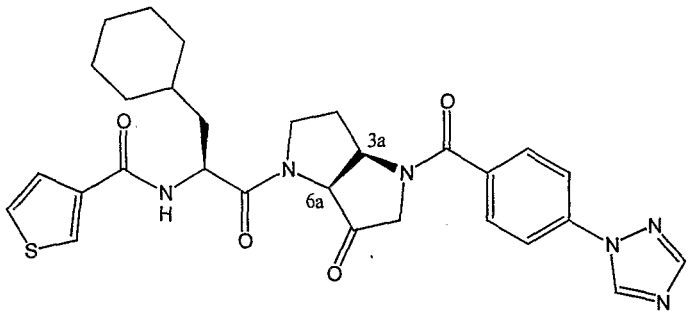
HPLC Rt = 18.3-19.5 mins (> 80%), HPLC-MS 544.1 $[M + H]^+$.

EXAMPLE 256. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-[4-(naphthalene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



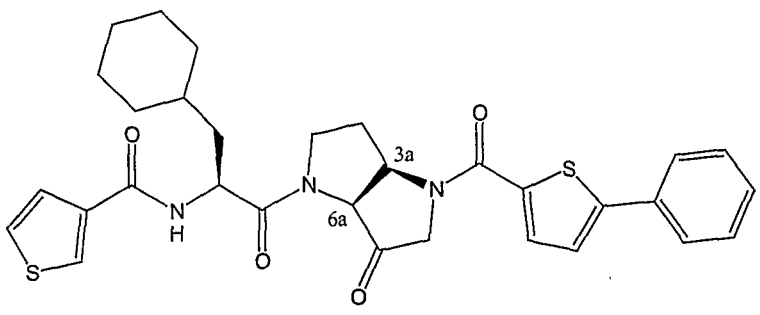
HPLC Rt = 18.9-19.7 mins (> 85%), HPLC-MS 544.1 $[M + H]^+$.

EXAMPLE 257. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(4-[1,2,4]triazol-1-yl-benzoyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide



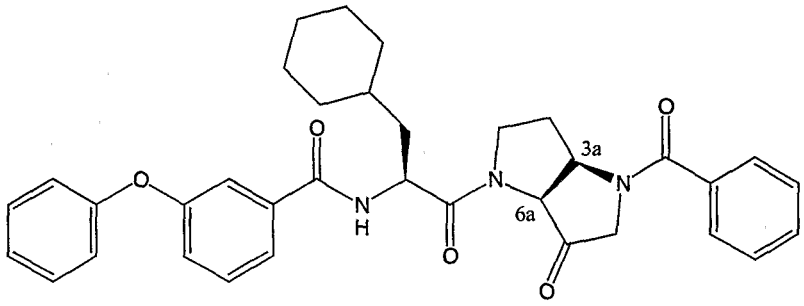
HPLC Rt = 15.5-16.5 mins (> 85%), HPLC-MS 561.2 $[M + H]^+$.

EXAMPLE 258. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(5-phenyl-thiophene-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide



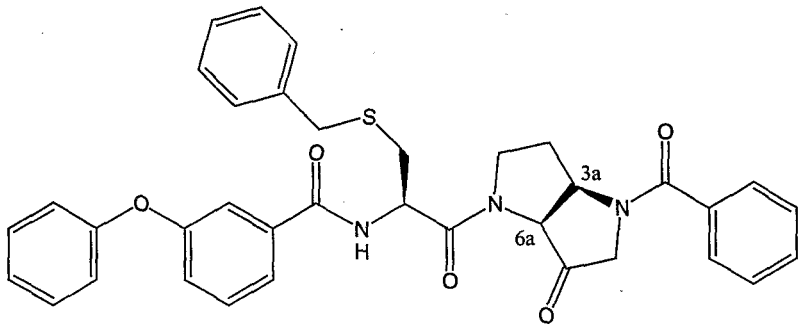
HPLC Rt = 19.5-20.2 mins (> 85%), HPLC-MS 576.1 $[M + H]^+$.

EXAMPLE 259. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-3-phenoxy-benzamide



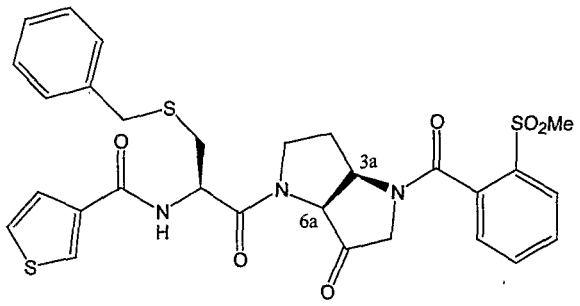
HPLC Rt = 19.4-20.3 mins (> 85%), HPLC-MS 580.2 $[M + H]^+$.

EXAMPLE 260. (3a*R*, 6a*S*)-*N*-[(1*R*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-3-phenoxy-benzamide



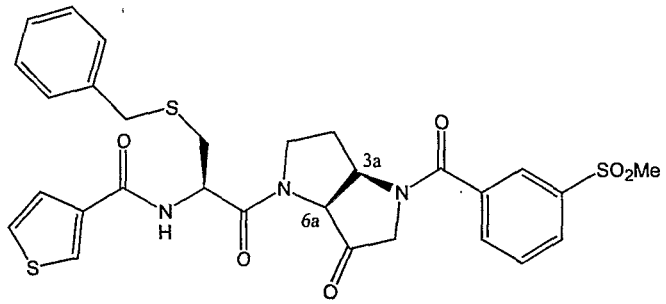
HPLC Rt = 18.3-19.6 mins (> 90%), HPLC-MS 620.2 $[M + H]^+$.

EXAMPLE 261. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



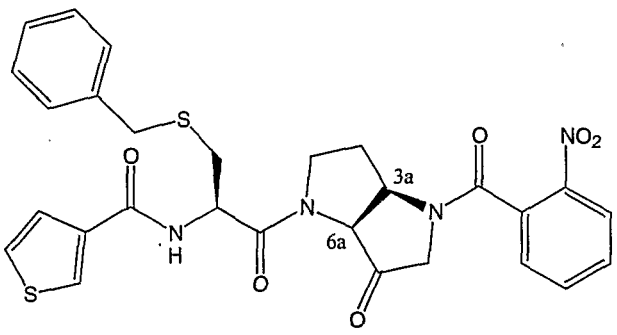
HPLC Rt = 14.5-15.2 mins (> 80%), HPLC-MS 612.0 $[M + H]^+$.

EXAMPLE 262. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



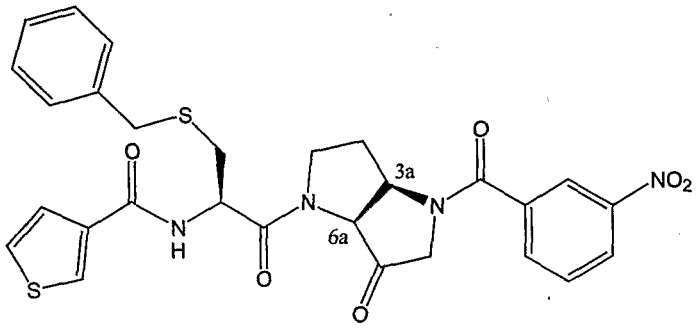
HPLC Rt = 14.09 mins (> 90%), HPLC-MS 612.1 $[M + H]^+$.

EXAMPLE 263. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(2-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



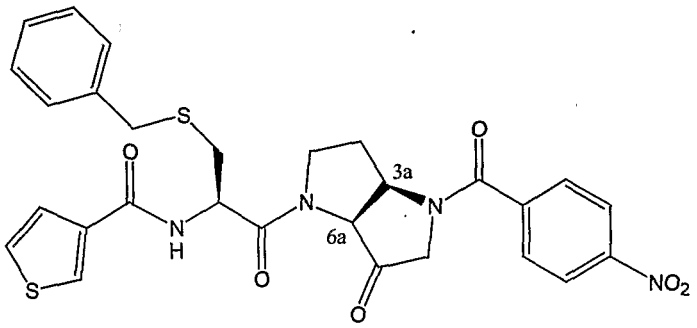
HPLC Rt = 14.93 mins (> 90%), HPLC-MS 579.0 $[M + H]^+$.

EXAMPLE 264. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(3-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



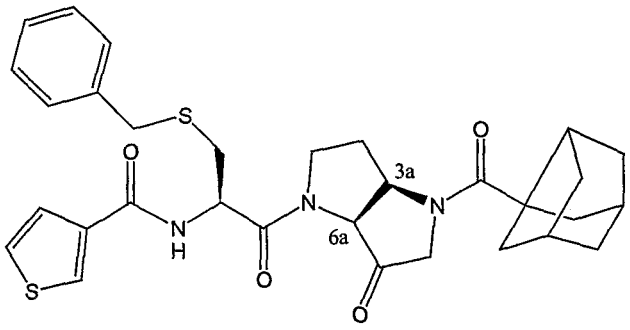
HPLC Rt = 15.53 mins (> 85%), HPLC-MS 579.0 $[M + H]^+$.

EXAMPLE 265. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(4-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



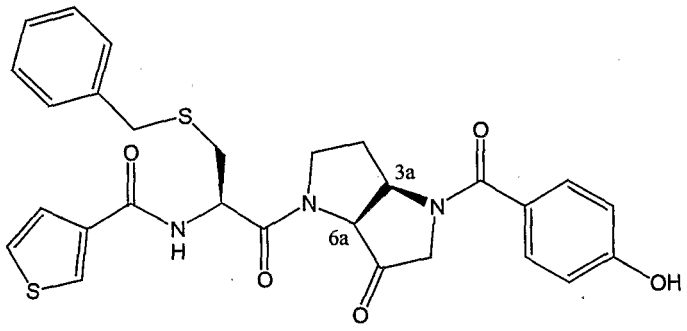
HPLC Rt = 15.41 mins (> 90%), HPLC-MS 579.1 $[M + H]^+$.

EXAMPLE 266. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(hexahydro-2,5-methano-pentalene-3a-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



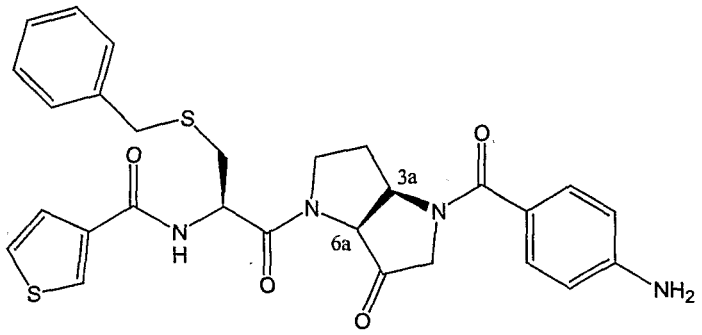
HPLC Rt = 17.0-18.2 mins (> 80%), HPLC-MS 578.1 $[M + H]^+$.

EXAMPLE 267. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(4-hydroxy-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



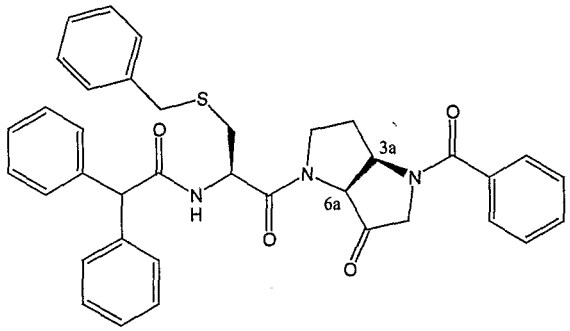
HPLC Rt = 13.43 mins (> 80%), HPLC-MS 550.0 $[M + H]^+$.

EXAMPLE 268. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-2-[4-(4-amino-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-benzylsulfanylmethyl-2-oxo-ethyl}-amide



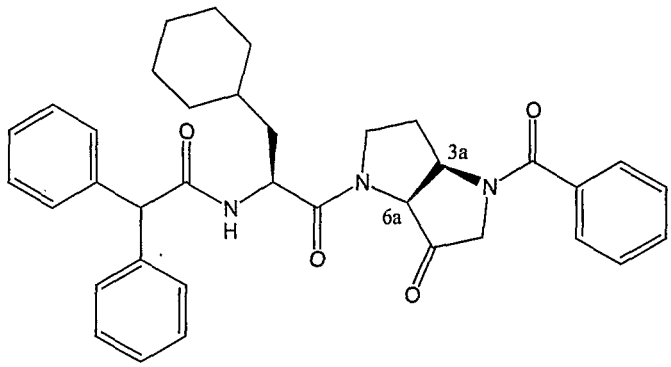
HPLC Rt = 11.8-12.4 mins (> 75%), HPLC-MS 549.1 $[M + H]^+$.

EXAMPLE 269. (3a*R*, 6a*S*)-*N*-[(1*R*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-2,2-diphenyl-acetamide



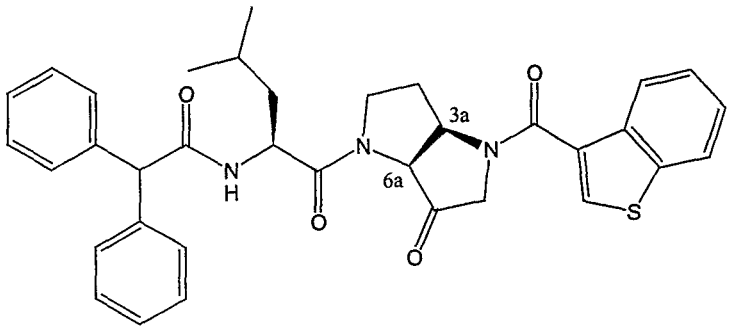
HPLC Rt = 19.1-20.3 mins (> 90%), HPLC-MS 618.2 $[M + H]^+$.

EXAMPLE 270. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-2,2-diphenyl-acetamide



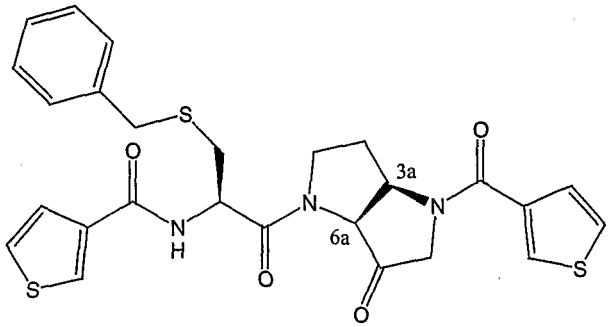
HPLC Rt = 19.9-21.0 mins (> 90%), HPLC-MS 578.3 $[M + H]^+$.

EXAMPLE 271. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-2,2-diphenyl-acetamide



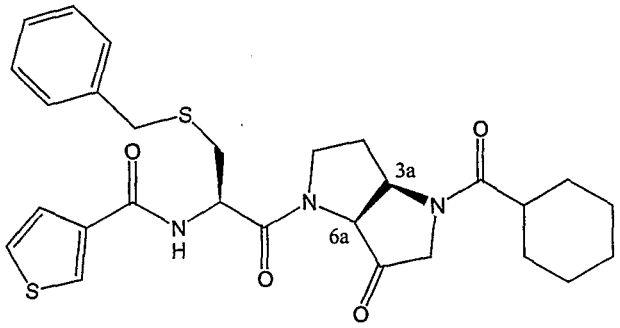
HPLC Rt = 19.4-20.7 mins (> 90%), HPLC-MS 594.2 $[M + H]^+$.

EXAMPLE 272. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-oxo-2-[6-oxo-4-(thiophene-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide



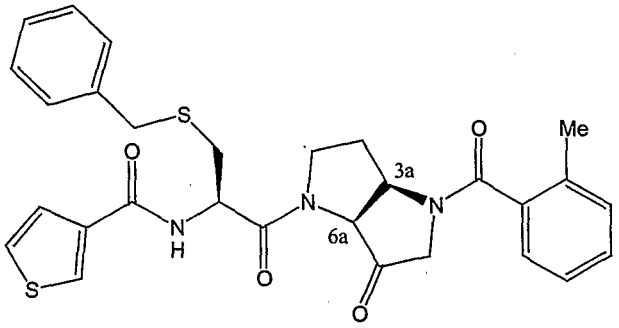
HPLC Rt = 14.56 mins (> 90%), HPLC-MS 540.0 $[M + H]^+$.

EXAMPLE 273. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid [(1*R*)-1-benzylsulfanyl methyl-2-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-2-oxo-ethyl]-amide



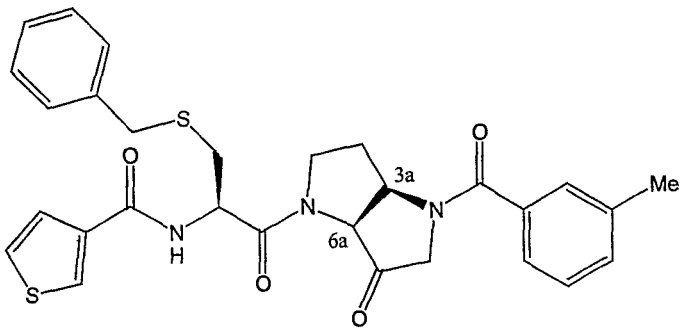
HPLC Rt = 15.5-16.4 mins (> 75%), HPLC-MS 540.1 $[M + H]^+$.

EXAMPLE 274. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(2-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



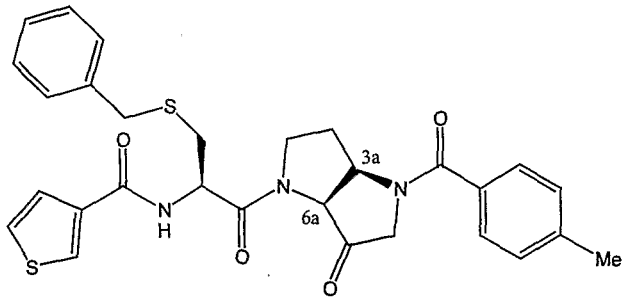
HPLC Rt = 16.0-17.9 mins (> 90%), HPLC-MS 548.1 $[M + H]^+$.

EXAMPLE 275. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(3-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



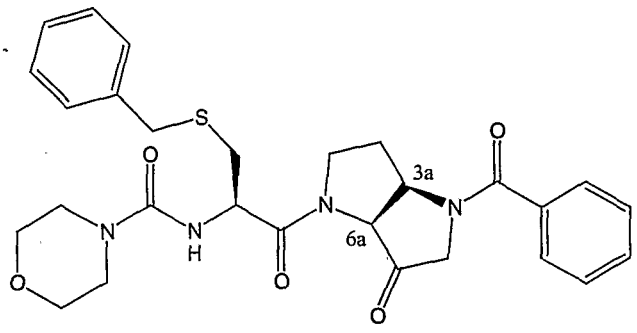
HPLC Rt = 16.3-17.8 mins (> 90%), HPLC-MS 548.1 $[M + H]^+$.

EXAMPLE 276. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*R*)-1-benzylsulfanyl methyl-2-[4-(4-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



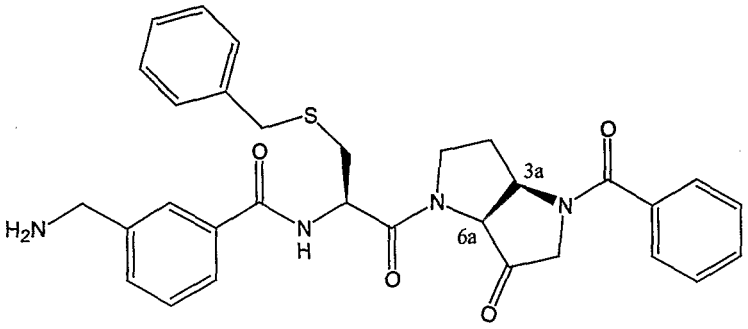
HPLC Rt = 15.5-16.8 mins (> 90%), HPLC-MS 548.1 $[M + H]^+$.

EXAMPLE 277. (3a*R*, 6a*S*)-Morpholine-4-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



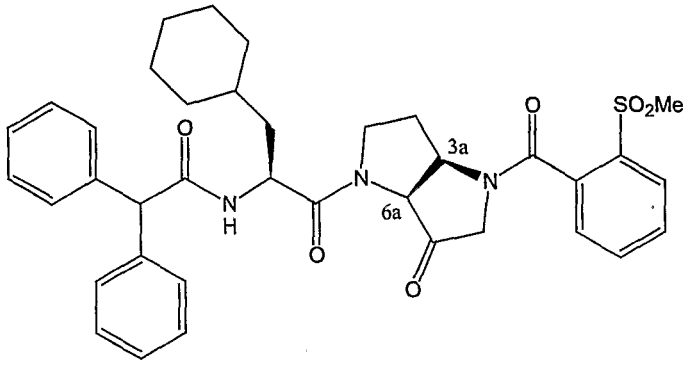
HPLC Rt = 12.5-13.8 mins (> 80%), HPLC-MS 537.1 $[M + H]^+$.

EXAMPLE 278. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-benzamide



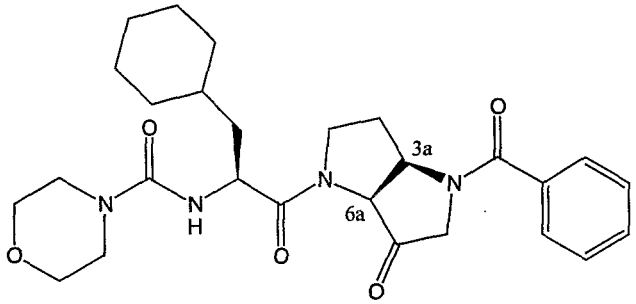
HPLC Rt = 12.0-13.4 mins (> 80%), HPLC-MS 557.2 $[M + H]^+$.

EXAMPLE 279. (3a*R*, 6a*S*)-*N*-{(1*S*)-1-Cyclohexylmethyl-2-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-2,2-diphenyl-acetamide



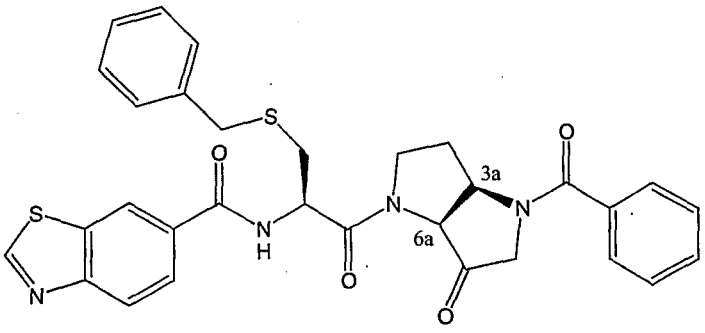
HPLC Rt = 20.1-21.4 mins (> 90%), HPLC-MS 656.2 $[M + H]^+$.

EXAMPLE 280. (3a*R*, 6a*S*)-Morpholine-4-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



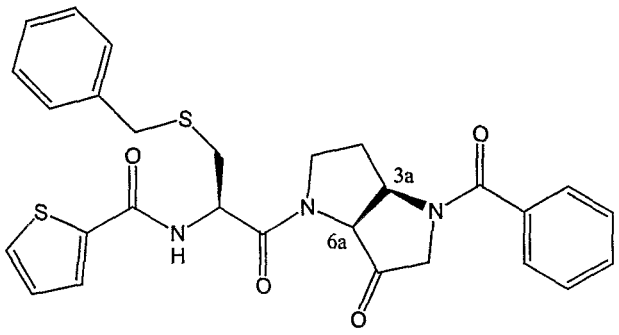
HPLC Rt = 14.96 mins (> 95%), HPLC-MS 497.2 $[M + H]^+$, 515.2 $[M + H + H_2O]^+$.

EXAMPLE 281. (3a*R*, 6a*S*)-Benzothiazole-6-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



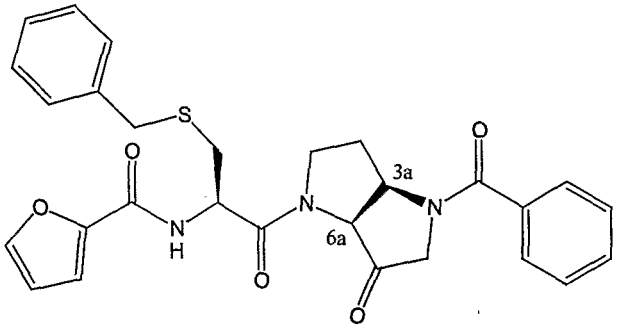
HPLC Rt = 15.15 mins (> 85%), HPLC-MS 585.1 $[M + H]^+$, 603.1 $[M + H + H_2O]^+$.

EXAMPLE 282. (3a*R*, 6a*S*)-Thiophene-2-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



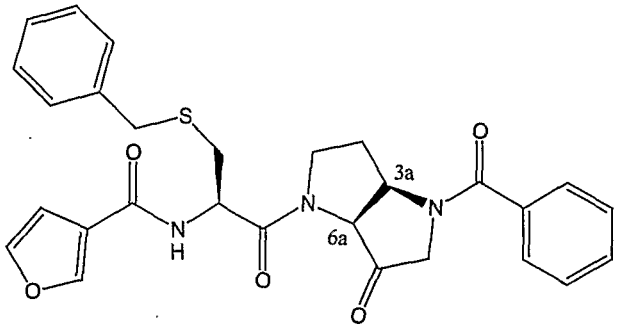
HPLC Rt = 15.06 mins (> 85%), HPLC-MS 534.0 $[M + H]^+$.

EXAMPLE 283. (3a*R*, 6a*S*)-Furan-2-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



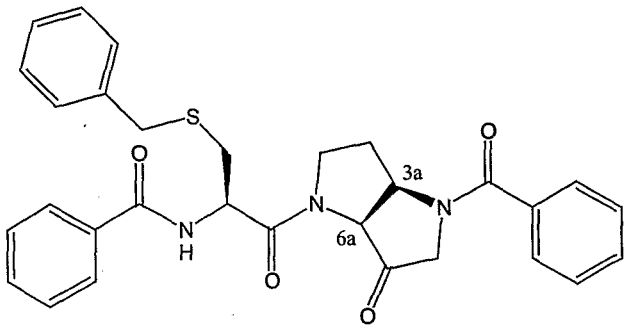
HPLC Rt = 14.1-15.4 mins (> 80%), HPLC-MS 518.1 $[M + H]^+$, 536.1 $[M + H + H_2O]^+$.

EXAMPLE 284. (3a*R*, 6a*S*)-Furan-3-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-amide



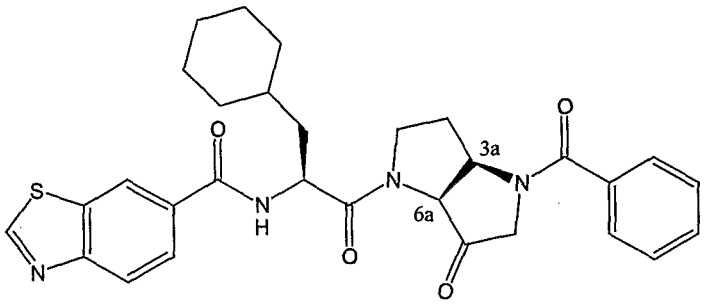
HPLC Rt = 15.7-17.3 mins (> 85%), HPLC-MS 518.1 $[M + H]^+$.

EXAMPLE 285. (3a*R*, 6a*S*)-*N*-[(1*R*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-benzylsulfanylmethyl-2-oxo-ethyl]-benzamide



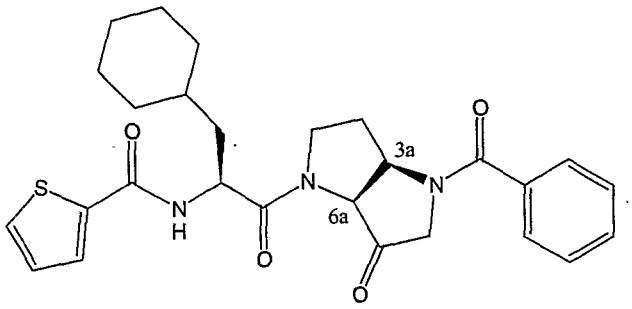
HPLC Rt = 15.34 mins (> 90%), HPLC-MS 528.1 $[M + H]^+$.

EXAMPLE 286. (3a*R*, 6a*S*)-Benzothiazole-6-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



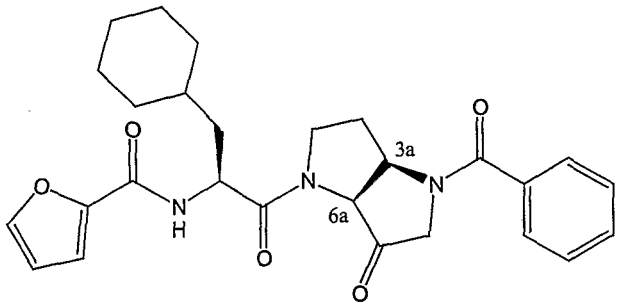
HPLC Rt = 18.25 mins (> 90%), HPLC-MS 5452 $[M + H]^+$.

EXAMPLE 287. (3a*R*, 6a*S*)-Thiophene-2-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



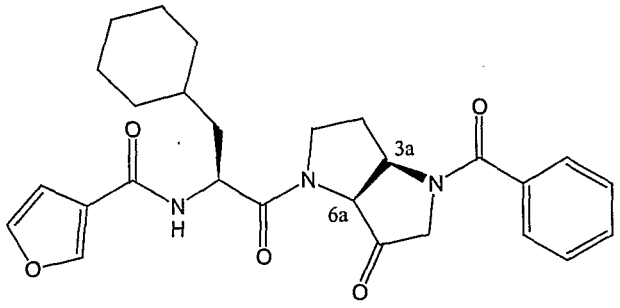
HPLC Rt = 18.28 mins (> 90%), HPLC-MS 494.1 $[M + H]^+$.

EXAMPLE 288. (3a*R*, 6a*S*)-Furan-2-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



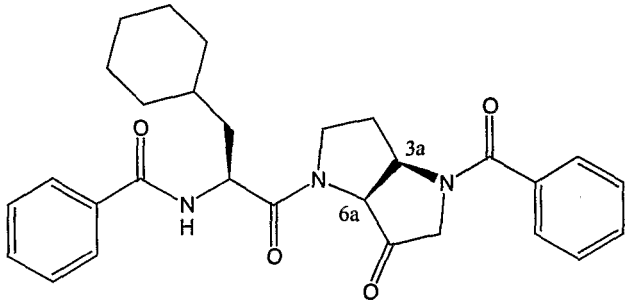
HPLC Rt = 16.66 mins (> 90%), HPLC-MS 478.1 $[M + H]^+$, 977.3 $[2M + Na]^+$.

EXAMPLE 289. (3a*R*, 6a*S*)-Furan-3-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-amide



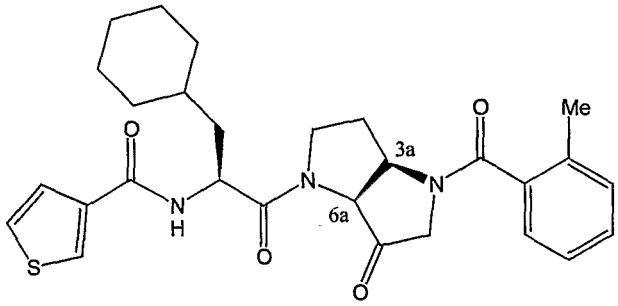
HPLC Rt = 16.37 mins (> 90%), HPLC-MS 478.1 $[M + H]^+$, 977.3 $[2M + Na]^+$.

EXAMPLE 290. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-cyclohexylmethyl-2-oxo-ethyl]-benzamide



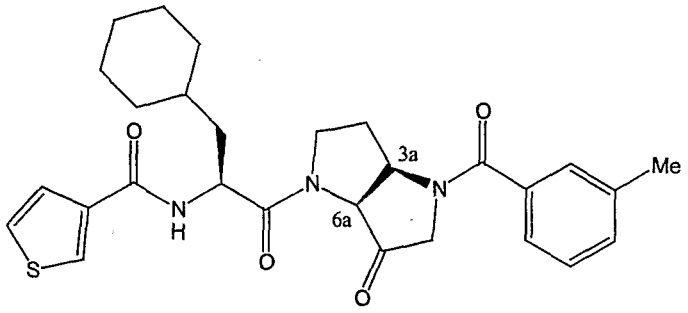
HPLC Rt = 16.71 mins (> 95%), HPLC-MS 488.2 $[M + H]^+$, 997.3 $[2M + Na]^+$.

EXAMPLE 291. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-[4-(2-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



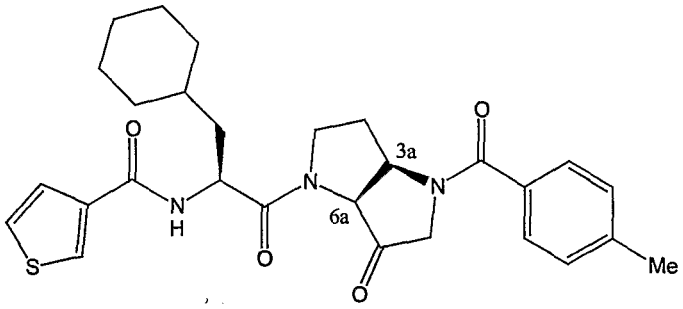
HPLC Rt = 15.65 mins (> 95%), HPLC-MS 508.2 $[M + H]^+$, 526.2 $[M + H + H_2O]^+$.

EXAMPLE 292. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-[4-(3-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



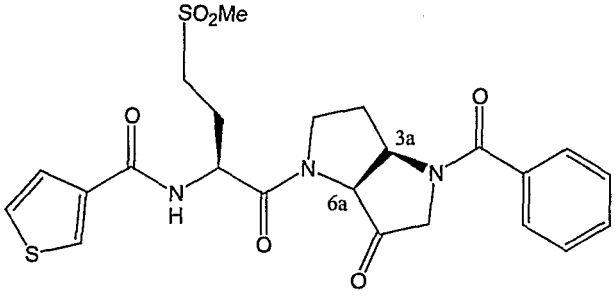
HPLC Rt = 16.10 mins (> 90%), HPLC-MS 508.1 $[M + H]^+$.

EXAMPLE 293. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid {(1*S*)-1-cyclohexylmethyl-2-[4-(4-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



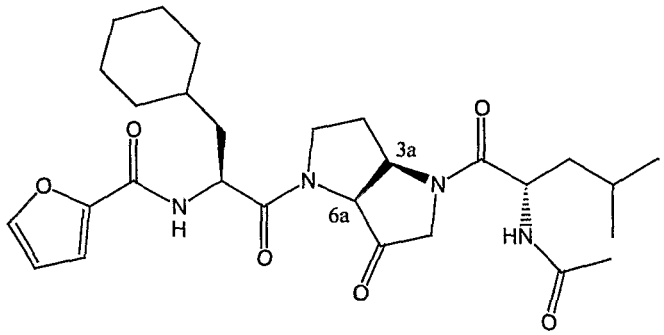
HPLC Rt = 15.88 mins (> 90%), HPLC-MS 508.1 $[M + H]^+$.

EXAMPLE 294. (3a*R*, 6a*S*)-Thiophene-3-carboxylic acid [(1*R*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-methanesulfonylmethyl-2-oxo-ethyl]-amide



HPLC Rt = 8.61 mins (> 90%), HPLC-MS 504.1 $[M + H]^+$.

EXAMPLE 295. (3a*R*, 6a*S*)-Furan-2-carboxylic acid {(1*S*)-2-[4-((2*S*)-2-acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-cyclohexylmethyl-2-oxo-ethyl}-amide

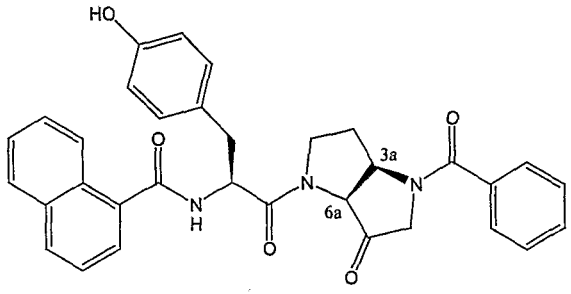


HPLC Rt = 14.35 mins (> 95%), HPLC-MS 529.2 $[M + H]^+$.

In addition, EXAMPLES 7, 8, 9, 10, 12, 13, 14, 16, 17, 19, 20, 37, 39, 59, 61, 65, 85, 86, 87, 88, 89, 90, 91, 92, 93, 98, 103, 123, 145, 151, 154, 158, 159, 161, 164, 170, 171, 172, 173, 174, 185, 187, 193, 194, 245, 247, 249a, 249b, 249c, 298, 303, 310, 314, 315, 316, 317, 323, 329, 330, 334, 335 and 340 have utility as inhibitors of cathepsin S with Ki less than 5000nM.

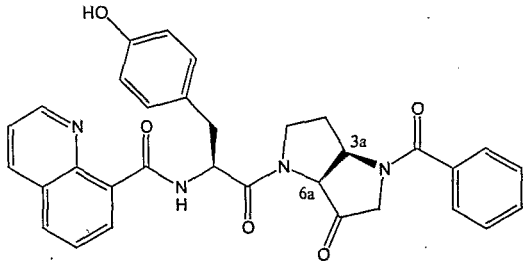
EXAMPLES 296 to 345 were prepared as detailed for EXAMPLES 1 and 119, substituting the appropriate carboxylic acids as required and are inhibitors of cathepsin L with Ki ranging from 10-5000nM;

EXAMPLE 296. (3*aR*, 6*aS*)-Naphthalene-1-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxybenzyl)-2-oxo-ethyl]-amide



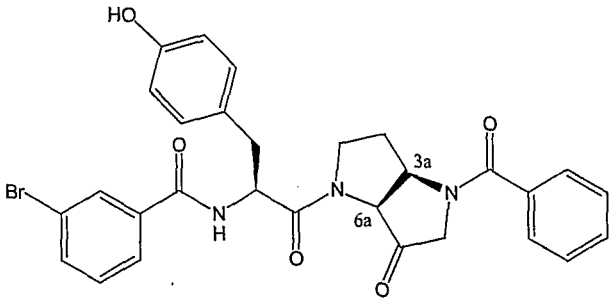
HPLC Rt = 13.5-14.4 mins (> 90%), HPLC-MS 548.2 $[M + H]^+$, 1117.4 $[2M + Na]^+$.

EXAMPLE 297. (3a*R*, 6a*S*)-Quinoline-8-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-amide



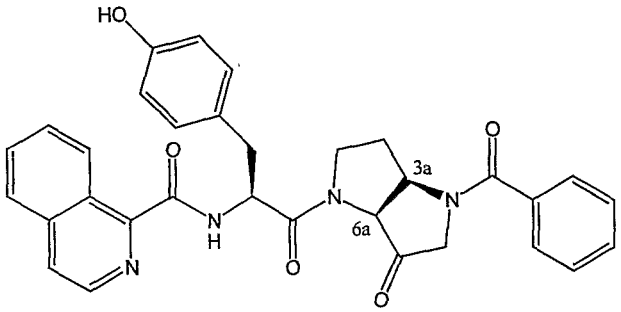
HPLC Rt = 11.79 mins (> 85%), HPLC-MS 549.2 $[M + H]^+$, 567.3 $[M + H + H_2O]^+$.

EXAMPLE 298. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



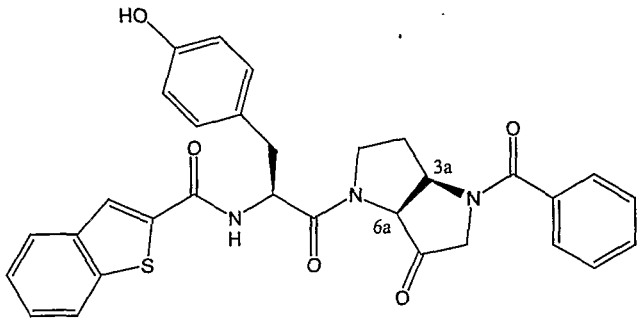
HPLC Rt = 13.21 mins (> 95%), HPLC-MS 576.1 / 578.1 $[M + H]^+$.

EXAMPLE 299. (3a*R*, 6a*S*)-Isoquinoline-1-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-amide



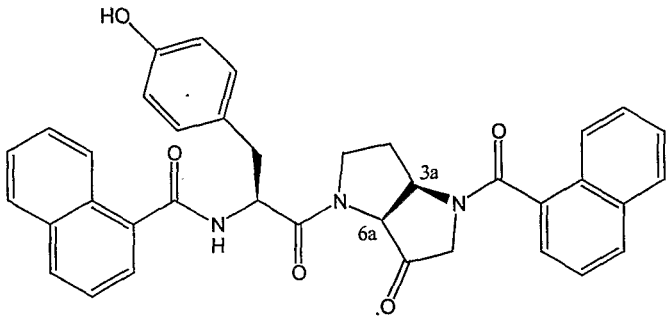
HPLC Rt = 14.1-15.1 mins (> 85%), HPLC-MS 549.2 $[M + H]^+$, 567.2 $[M + H + H_2O]^+$.

EXAMPLE 300. (3a*R*, 6a*S*)-Benzo[*b*]thiophene-2-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-amide



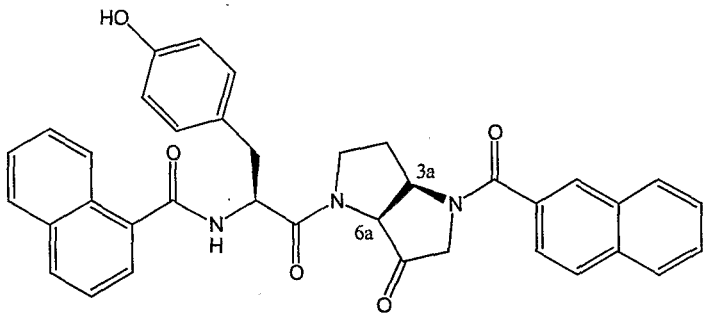
HPLC Rt = 14.8-15.6 mins (> 85%), HPLC-MS 554.2 $[M + H]^+$.

EXAMPLE 301.(3a*R*, 6a*S*)-Naphthalene-1-carboxylic acid {(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(naphthalene-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



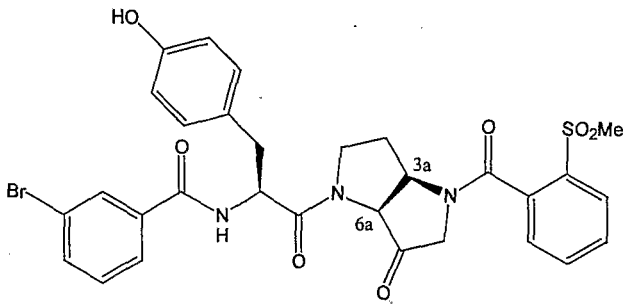
HPLC Rt = 15.5-16.8 mins (> 85%), HPLC-MS 598.2 $[M + H]^+$, 616.2 $[M + H + H_2O]^+$.

EXAMPLE 302. (3a*R*, 6a*S*)-Naphthalene-1-carboxylic acid {(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(naphthalene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-amide



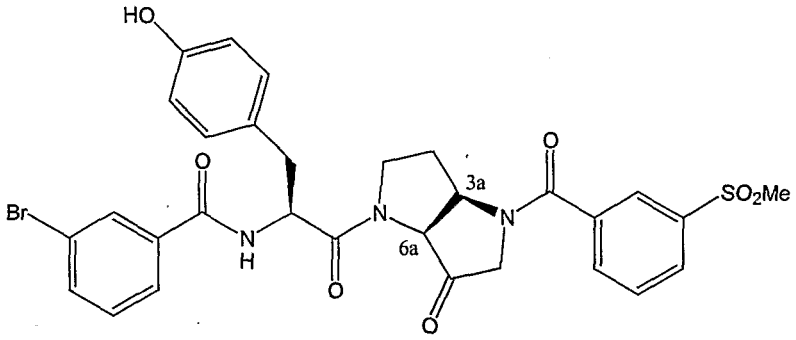
HPLC Rt = 16.0-16.9 mins (> 90%), HPLC-MS 598.2 $[M + H]^+$.

EXAMPLE 303. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methane sulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



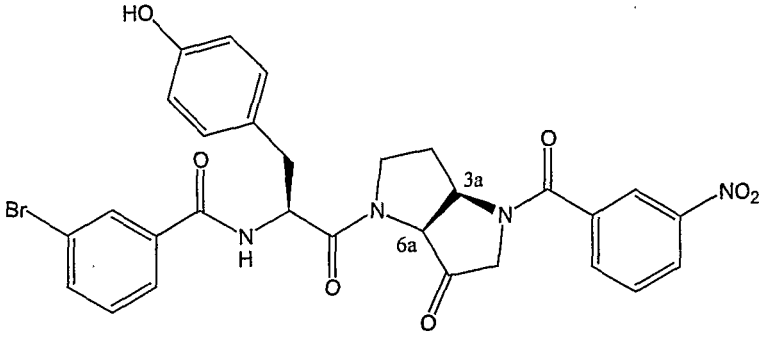
HPLC Rt = 12.66 mins (> 90%), HPLC-MS 654.0 / 656.0 $[M + H]^+$.

EXAMPLE 304. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(3-methane sulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



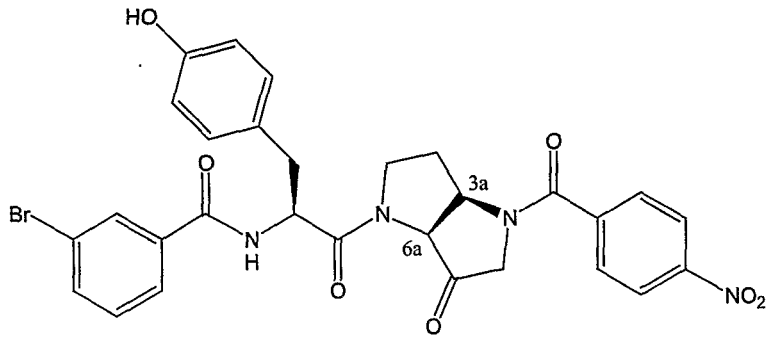
HPLC Rt = 12.95 mins (> 75%), HPLC-MS 654.0 / 656.0 $[M + H]^+$.

EXAMPLE 305. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(3-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



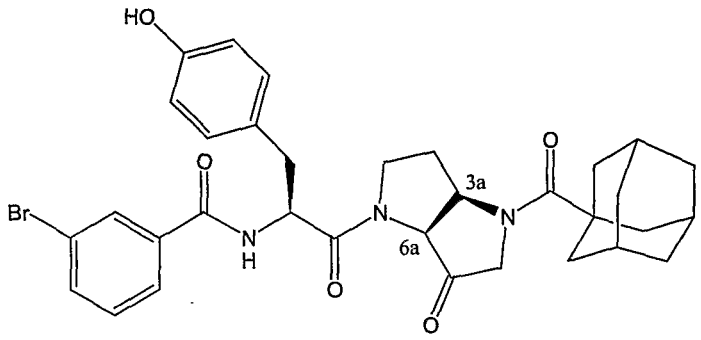
HPLC Rt = 13.52 mins (> 90%), HPLC-MS 621.0 / 623.0 $[M + H]^+$.

EXAMPLE 306. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(4-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



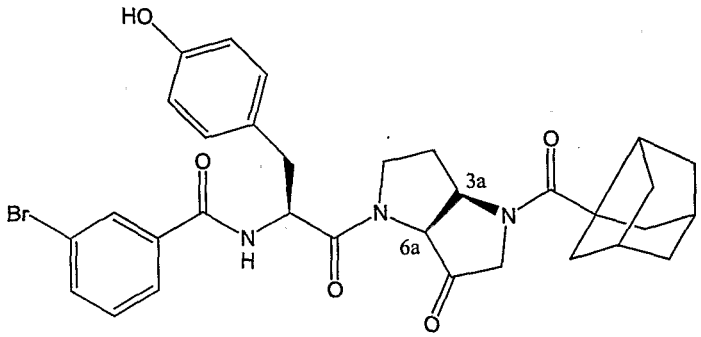
HPLC Rt = 13.50 mins (> 95%), HPLC-MS 621.0 / 623.0 $[M + H]^+$.

EXAMPLE 307. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Adamantane-1-carbonyl)-6-oxo-hexa hydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



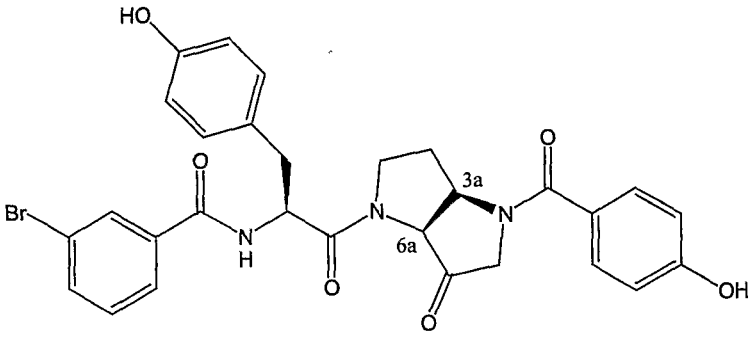
HPLC Rt = 15.9-17.3 mins (> 50%), HPLC-MS 634.0 / 636.0 $[M + H]^+$.

EXAMPLE 308. (3a*R*, 6a*S*)-3-Bromo-*N*-[(1*S*)-2-[4-(hexahydro-2,5-methano-pentalene-3a-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



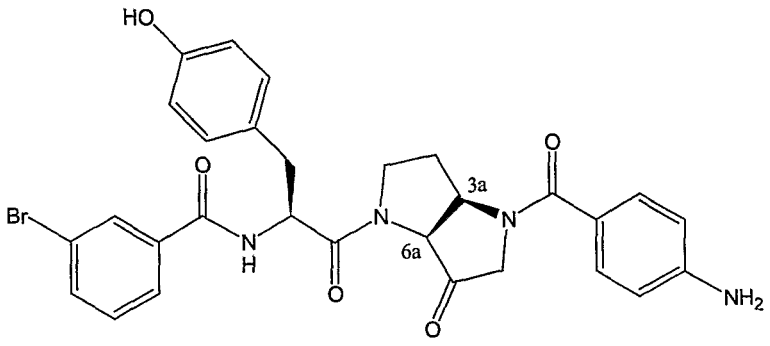
HPLC Rt = 14.7-16.2 mins (> 80%), HPLC-MS 620.0 / 622.0 $[M + H]^+$, 638.1 / 640.1 $[M + H + H_2O]^+$.

EXAMPLE 309. (3a*R*, 6a*S*)-3-Bromo-*N*-[(1*S*)-2-[4-(4-hydroxy-benzoyl)-6-oxo-hexa hydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



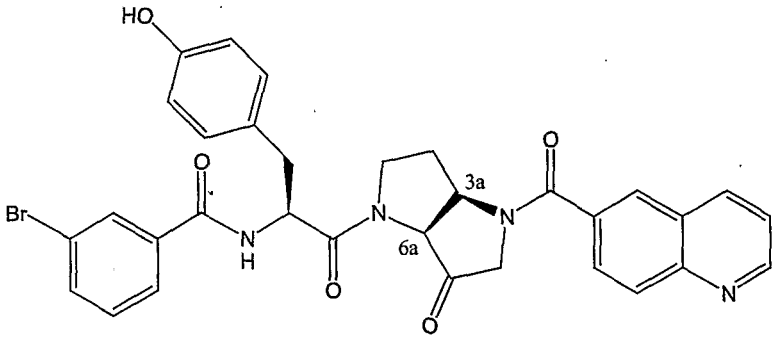
HPLC Rt = 11.92 mins (> 80%), HPLC-MS 592.0 / 594.0 $[M + H]^+$.

EXAMPLE 310. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(4-Amino-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



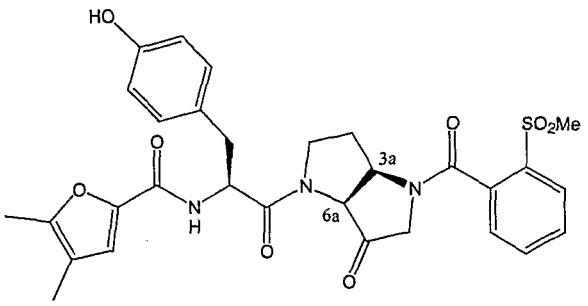
HPLC Rt = 9.9-10.6 mins (> 75%), HPLC-MS 591.0 / 593.0 $[M + H]^+$, 609.0 / 611.0 $[M + H + H_2O]^+$.

EXAMPLE 311. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(quinoline-6-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



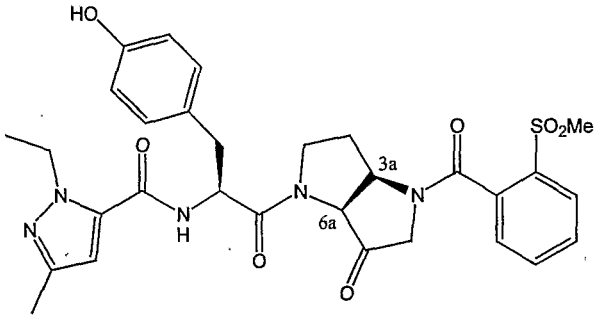
HPLC Rt = 11.13 mins (> 75%), HPLC-MS 627.0 / 629.0 $[M + H]^+$, 645.0 / 647.0 $[M + H + H_2O]^+$.

EXAMPLE 312. (3a*R*, 6a*S*)-4,5-Dimethyl-furan-2-carboxylic acid {(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl]-2-oxo-ethyl}-amide



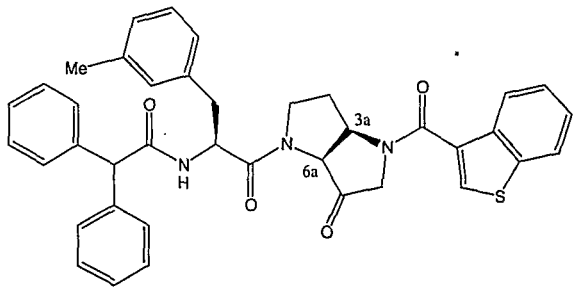
HPLC Rt = 11.43 mins (> 90%), HPLC-MS 594.1 $[M + H]^+$.

EXAMPLE 313. (3a*R*, 6a*S*)-2-Ethyl-5-methyl-2*H*-pyrazole-3-carboxylic acid {(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methanesulfonylbenzoyl)-6-oxo-hexahydropyrrolo[3,2-*b*] pyrrol-1-yl]-2-oxo-ethyl}-amide



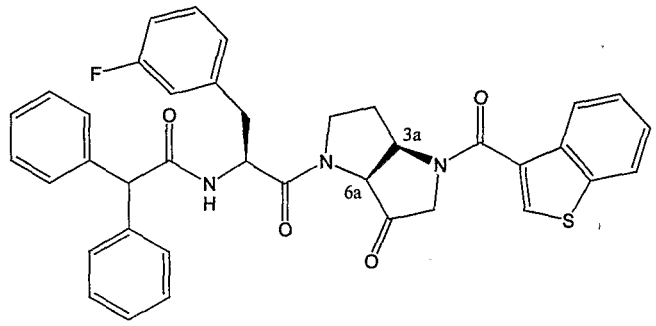
HPLC Rt = 10.03 mins (> 90%), HPLC-MS 608.1 $[M + H]^+$, 626.1 $[M + H + H_2O]^+$.

EXAMPLE 314. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(3-methyl-benzyl)-2-oxo-ethyl]-2,2-diphenyl-acetamide



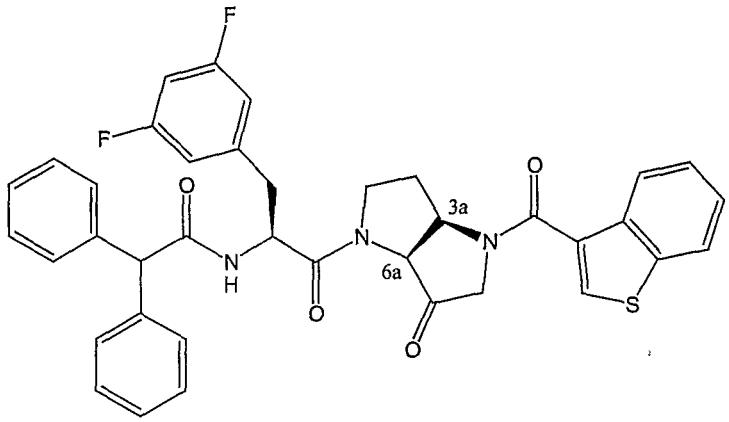
HPLC Rt = 20.2-21.4 mins (> 95%), HPLC-MS 642.2 $[M + H]^+$.

EXAMPLE 315. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(3-fluoro-benzyl)-2-oxo-ethyl]-2,2-diphenyl-acetamide



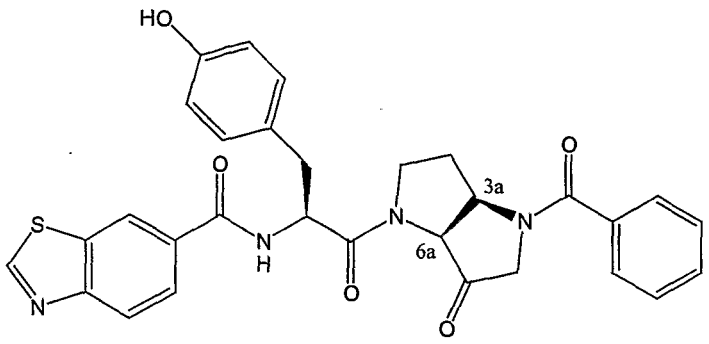
HPLC Rt = 19.7-21.0 mins (> 90%), HPLC-MS 646.2 $[M + H]^+$.

EXAMPLE 316. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(3,5-difluoro-benzyl)-2-oxo-ethyl]-2,2-diphenyl-acetamide



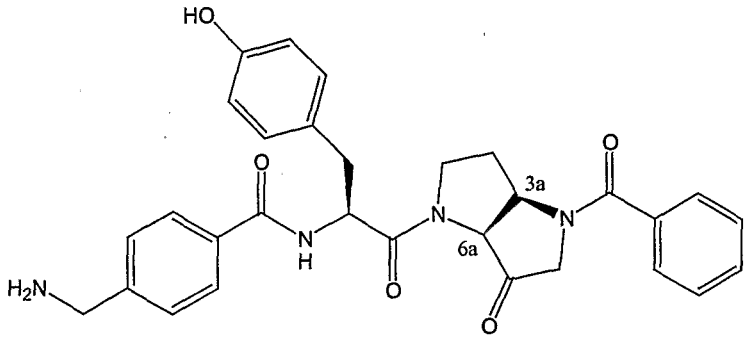
HPLC Rt = 20.1-21.3 mins (> 90%), HPLC-MS 664.2 $[M + H]^+$.

EXAMPLE 317. (3a*R*, 6a*S*)-Benzothiazole-6-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-amide



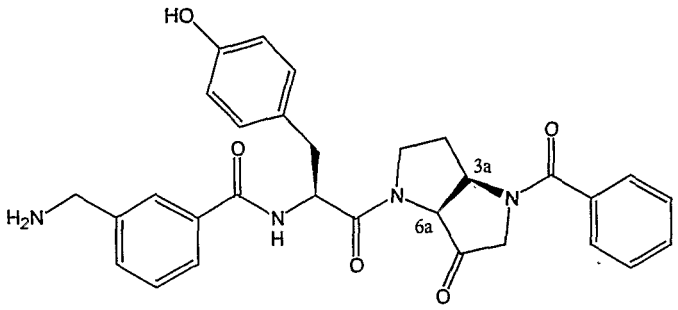
HPLC Rt = 12.02 mins (> 95%), HPLC-MS 555.1 $[M + H]^+$.

EXAMPLE 318. (3a*R*, 6a*S*)-4-Aminomethyl-*N*-[(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



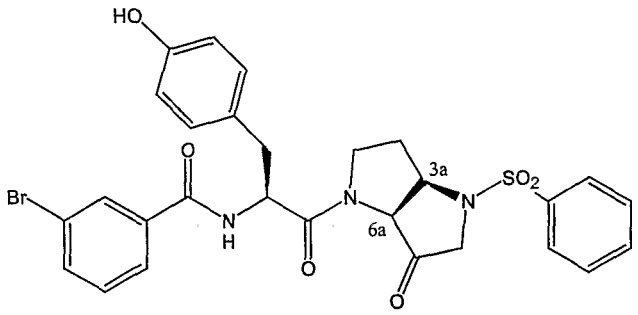
HPLC Rt = 8.92 mins (> 95%), HPLC-MS 527.2 $[M + H]^+$, 545.2 $[M + H + H_2O]^+$.

EXAMPLE 319. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



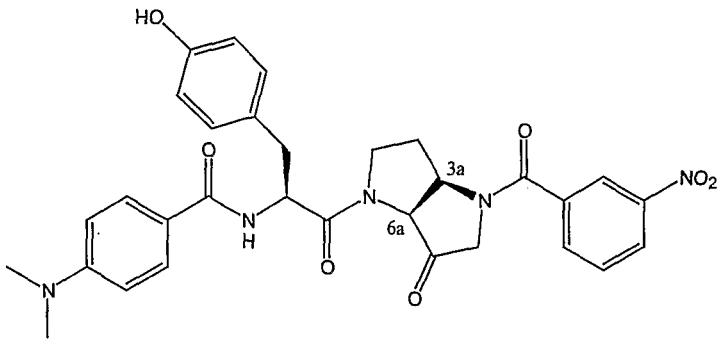
HPLC Rt = 9.14 mins (> %), HPLC-MS 527.2 $[M + H]^+$, 545.3 $[M + H + H_2O]^+$.

EXAMPLE 320. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



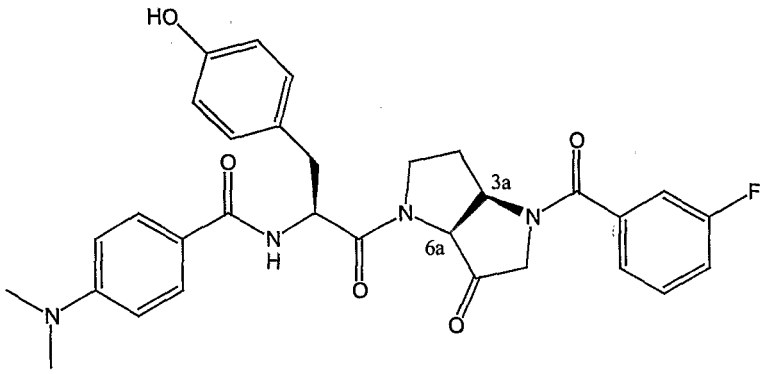
HPLC Rt = 16.1-17.9 mins (> 90%), HPLC-MS 612.0 / 614.0 $[M + H]^+$.

EXAMPLE 321. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(3-nitro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



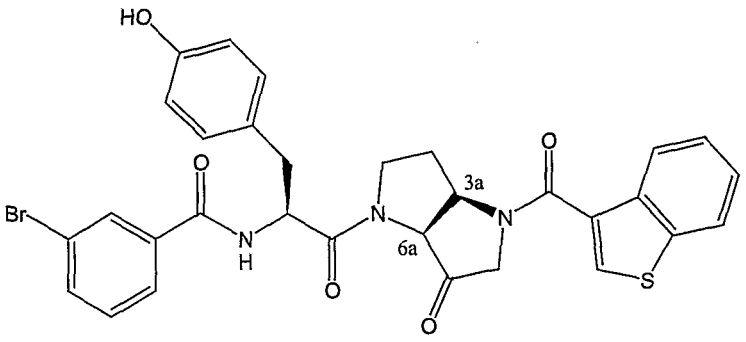
HPLC Rt = 10.75 mins (> 80%), HPLC-MS 586.2 $[M + H]^+$, 604.2 $[M + H + H_2O]^+$.

EXAMPLE 322. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-[(1*S*)-2-[4-(3-fluoro-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



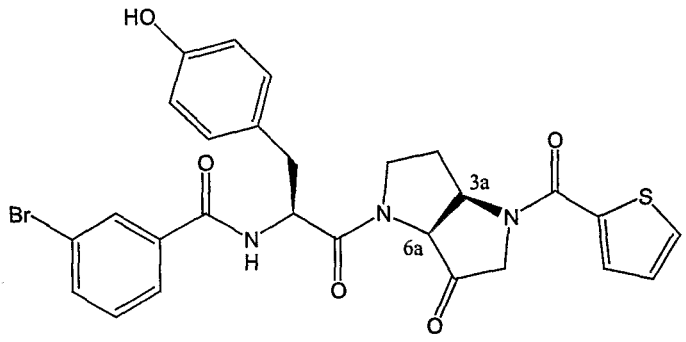
HPLC Rt = 10.59 mins (> 90%), HPLC-MS 559.2 $[M + H]^+$, 577.2 $[M + H + H_2O]^+$.

EXAMPLE 323. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



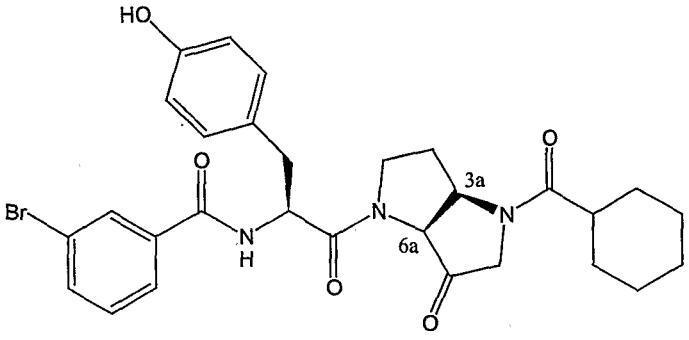
HPLC Rt = 14.61 mins (> 90%), HPLC-MS 632.0 / 634.0 $[M + H]^+$.

EXAMPLE 324. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(thiophene-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



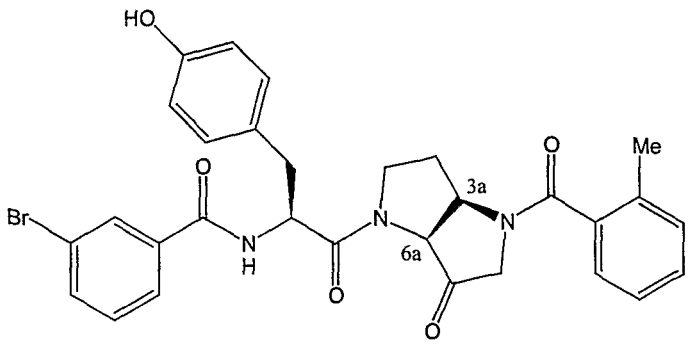
HPLC Rt = 12.93 mins (> 90%), HPLC-MS 582.0 / 584.0 $[M + H]^+$.

EXAMPLE 325. (3a*R*, 6a*S*)-3-Bromo-*N*-[(1*S*)-2-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



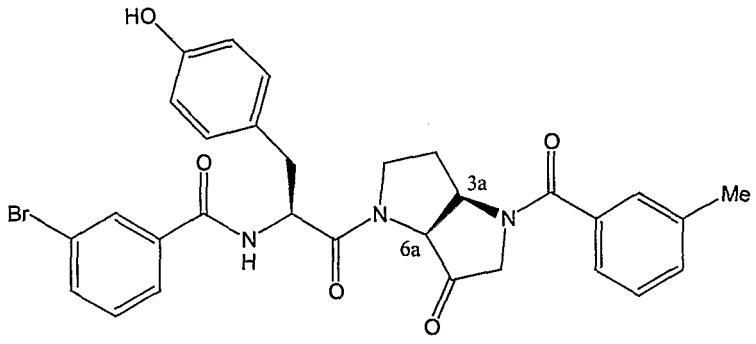
HPLC Rt = 15.0-17.0 mins (> 90%), HPLC-MS 582.1 / 584.1 $[M + H]^+$.

EXAMPLE 326. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



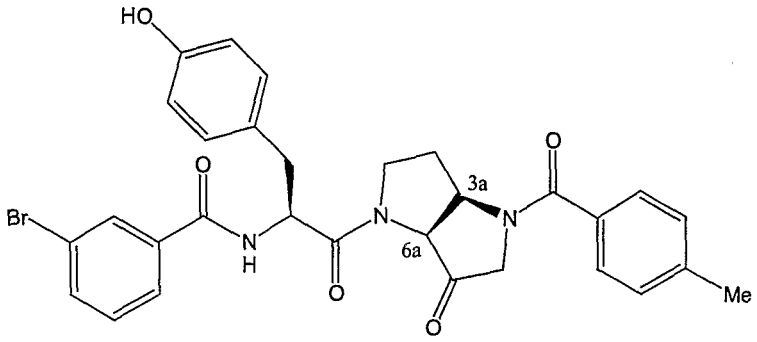
HPLC Rt = 14.4-16.1 mins (> 90%), HPLC-MS 590.0 / 592.0 $[M + H]^+$.

EXAMPLE 327. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(3-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



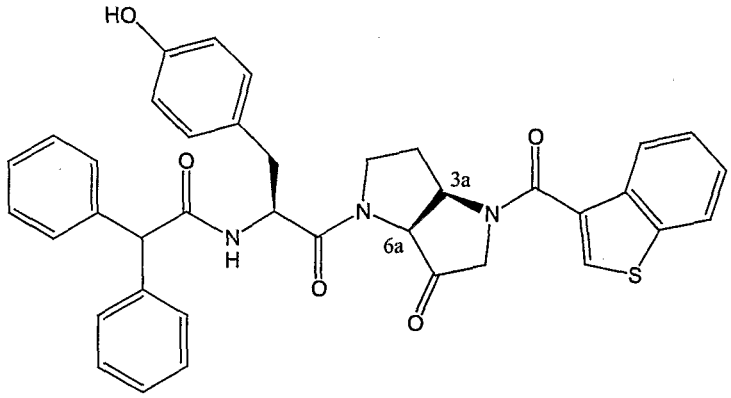
HPLC Rt = 14.4-15.8 mins (> 90%), HPLC-MS 590.0 / 592.0 $[M + H]^+$.

EXAMPLE 328. (3a*R*, 6a*S*)-3-Bromo-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(4-methyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



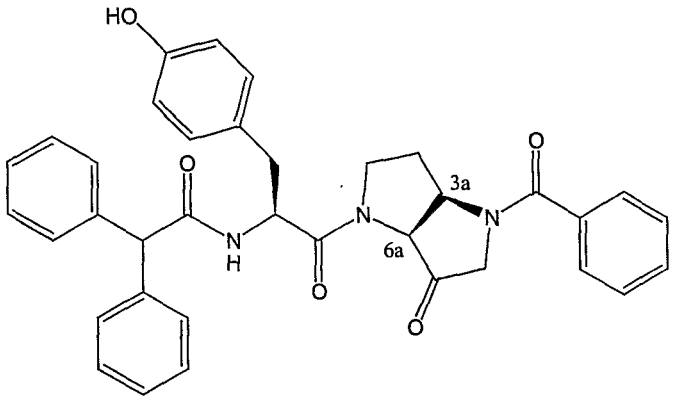
HPLC Rt = 13.8-14.9 mins (> 90%), HPLC-MS 590.0 / 592.0 $[M + H]^+$.

EXAMPLE 329. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-(Benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-2,2-diphenyl-acetamide



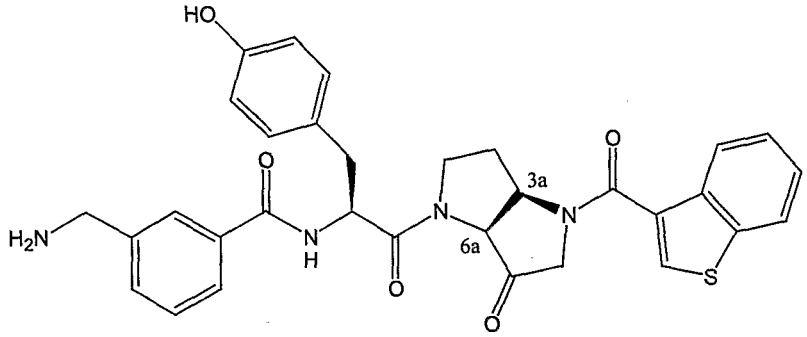
HPLC Rt = 17.0-18.5 mins (> 80%), HPLC-MS 644.1 $[M + H]^+$.

EXAMPLE 330. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-2,2-diphenyl-acetamide



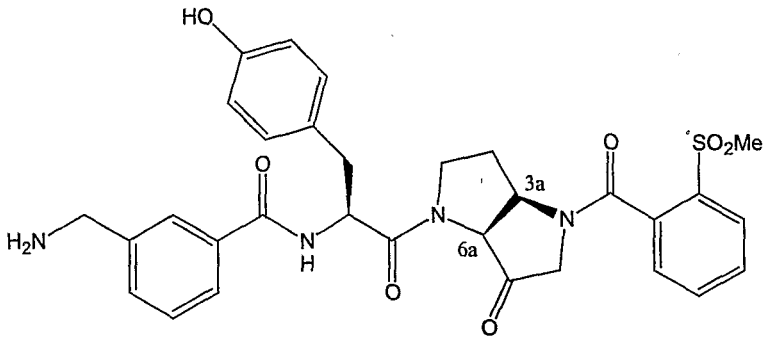
HPLC Rt = 16.4-17.5 mins (> 85%), HPLC-MS 588.2 $[M + H]^+$.

EXAMPLE 331. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-[(1*S*)-2-[4-(benzo[*b*]thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



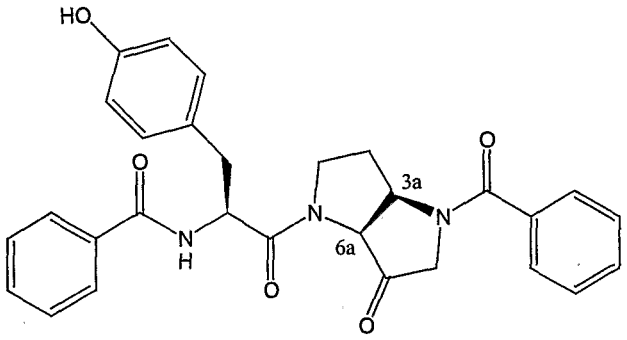
HPLC Rt = 10.82 mins (> 90%), HPLC-MS 583.1 $[M + H]^+$.

EXAMPLE 332. (3a*R*, 6a*S*)-3-Aminomethyl-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



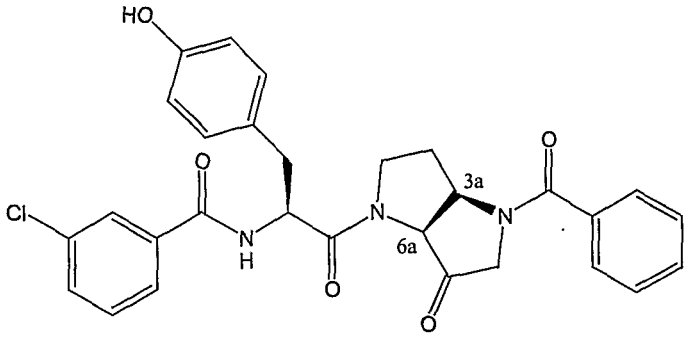
HPLC Rt = 8.16 mins (> 85%), HPLC-MS 605.1 $[M + H]^+$, 623.2 $[M + H + H_2O]^+$.

EXAMPLE 333. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-benzamide



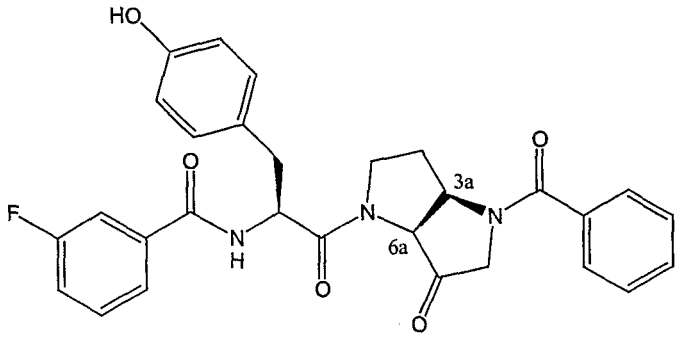
HPLC Rt = 11.79 mins (> 95%), HPLC-MS 498.1 $[M + H]^+$.

EXAMPLE 334. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-chloro-benzamide



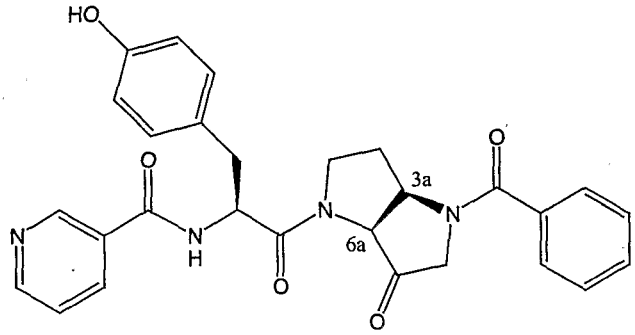
HPLC Rt = 13.64 mins (> 95 %), HPLC-MS 532.1 / 534.1 $[M + H]^+$.

EXAMPLE 335. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-fluoro-benzamide



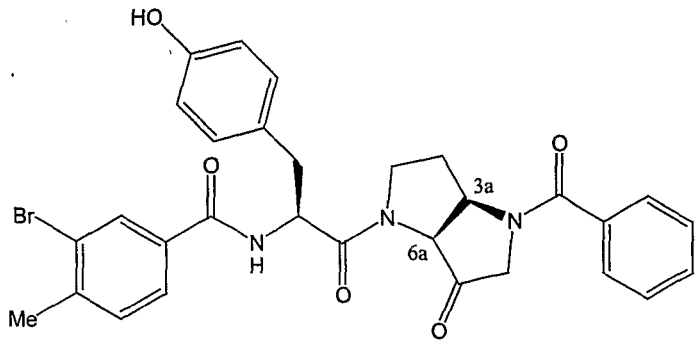
HPLC Rt = 12.10 mins (> 90%), HPLC-MS 516.1 $[M + H]^+$.

EXAMPLE 336. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-nicotinamide



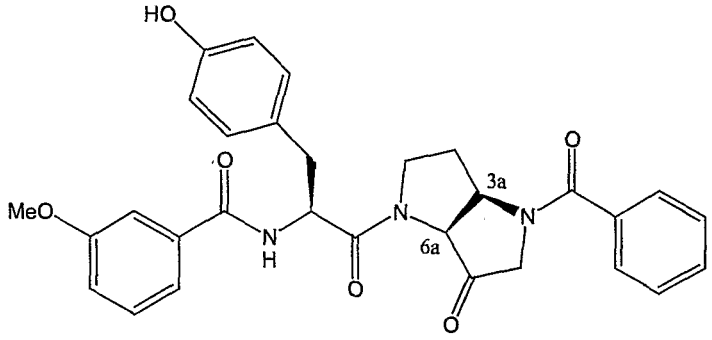
HPLC Rt = 8.16 mins (> 95%), HPLC-MS 499.1 $[M + H]^+$, 997.2 $[2M + H]^+$.

EXAMPLE 337. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-4-methyl-benzamide



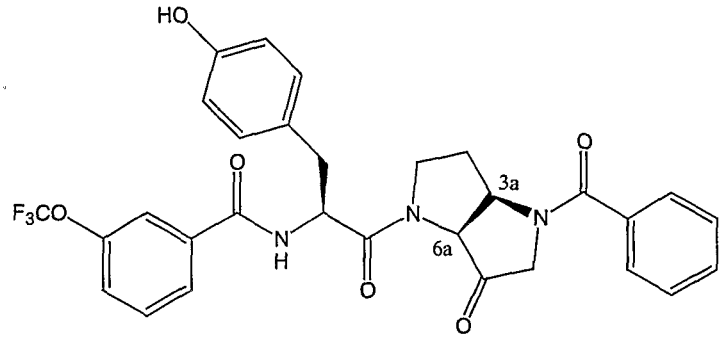
HPLC Rt = 14.0-15.1 mins (> 85%), HPLC-MS 590.0 / 592.0 $[M + H]^+$.

EXAMPLE 338. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-methoxy-benzamide



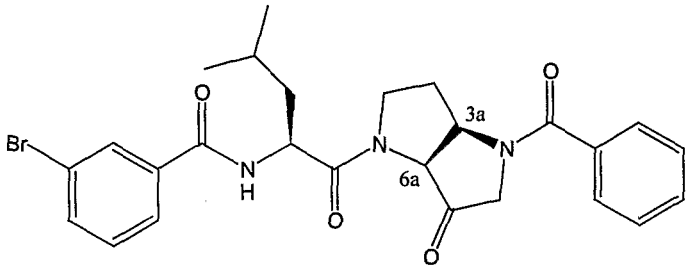
HPLC Rt = 11.81 mins (> 95%), HPLC-MS 528.1 $[M + H]^+$.

EXAMPLE 339. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-trifluoromethoxy-benzamide



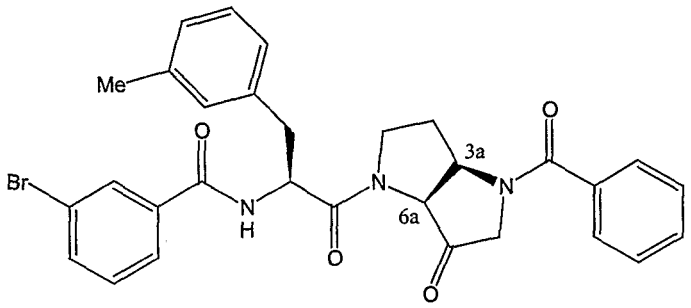
HPLC Rt = 14.21 mins (> 90%), HPLC-MS 582.1 $[M + H]^+$, 600.2 $[M + H + H_2O]^+$.

EXAMPLE 340. (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methyl-butyl]-3-bromo-benzamide



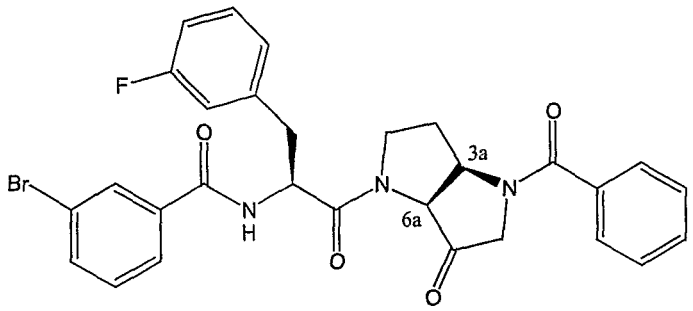
HPLC Rt = 15.0-16.1 mins (> 85%), HPLC-MS 526.1 / 528.1 $[M + H]^+$.

EXAMPLE 341. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(3-methyl-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



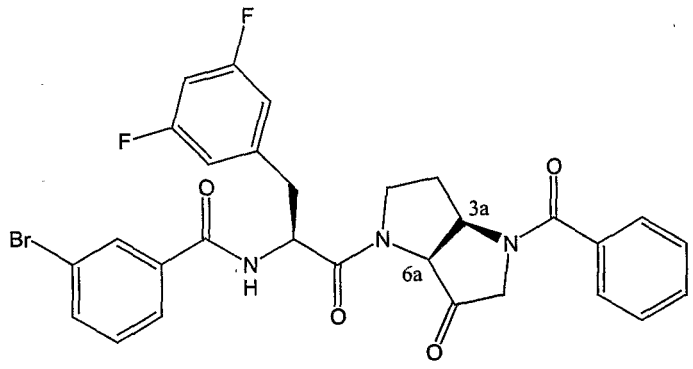
HPLC Rt = 17.0-18.3 mins (> 85%), HPLC-MS 574.0 / 576.0$[M + H]^+$.

EXAMPLE 342. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(3-fluoro-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



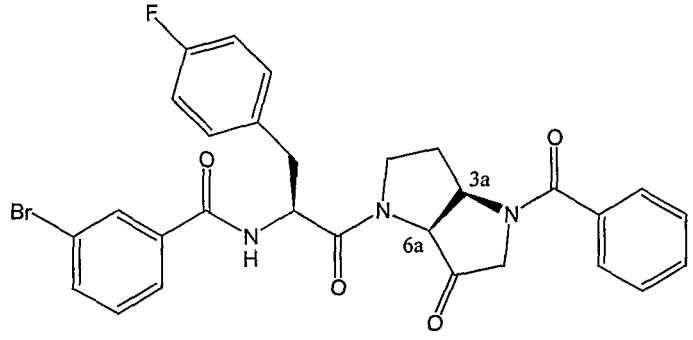
HPLC Rt = 15.8-17.1 mins (> 90%), HPLC-MS 578.0 / 580.0 $[M + H]^+$.

EXAMPLE 343. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(3,5-difluoro-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



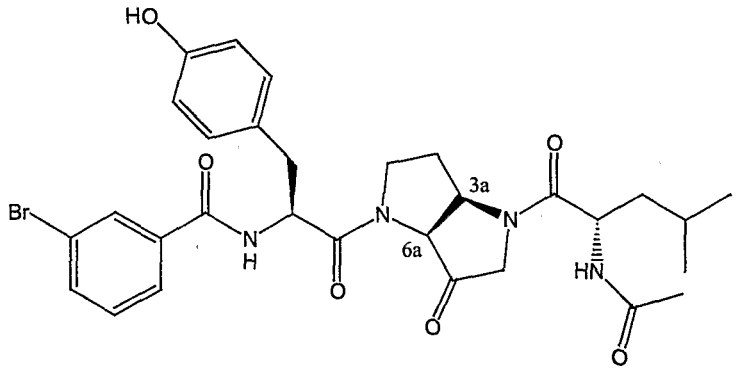
HPLC Rt = 15.9-17.3 mins (> 90%), HPLC-MS 596.0 / 598.0 $[M + H]^+$.

EXAMPLE 344. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-fluoro-benzyl)-2-oxo-ethyl]-3-bromo-benzamide



HPLC Rt = 17.1-18.2 mins (> 90%), HPLC-MS 578.0 / 580.0 $[M + H]^+$.

EXAMPLE 345. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-[4-((2*S*)-2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-3-bromo-benzamide

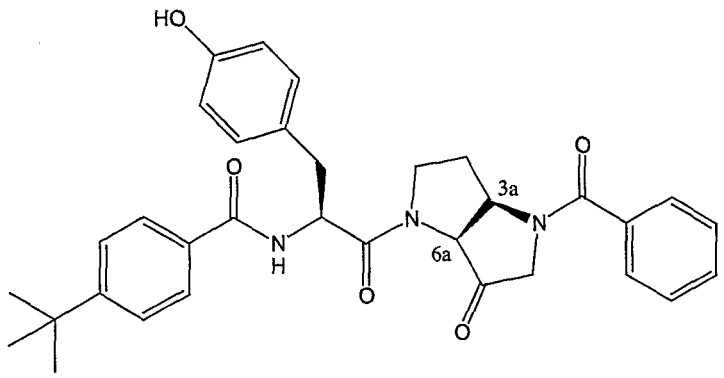


HPLC Rt = 12.73 mins (> 90%), HPLC-MS 627.0 / 629.0 $[M + H]^+$.

In addition, EXAMPLES 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 28, 31, 37, 59, 63, 65, 68, 73, 85, 86, 87, 88, 89, 90, 91, 92, 93, 98, 103, 104, 111, 113, 117, 118, 145, 151, 154, 158, 159, 161, 164, 170, 171, 172, 173, 174, 175, 178, 179, 180, 181, 182, 185, 193, 194, 204, 216, 244, 245, 246, 247, 249a, 249b, 249c, 250, 251, 254, 255, 256, 258, 259, 261, 262, 268, 269, 270, 271, 272, 273, 275, 278, 280, 281, 282, 285, 286, 287, 288, 289, 290, 291, 292, 293, 295, 346, 356, 357, 358 and 359 have utility as inhibitors of cathepsin L with Ki less than 5000nM.

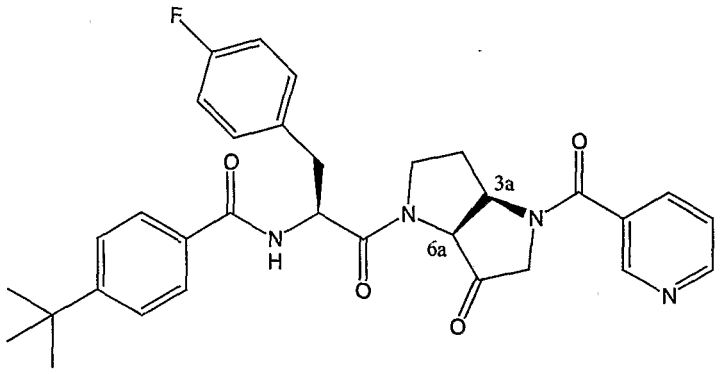
EXAMPLES 346 to 359 were prepared as detailed for EXAMPLES 1 and 119, substituting the appropriate carboxylic acids as required and are inhibitors of cruzain and cruzipains with Ki ranging from 10-5000nM;

EXAMPLE 346. (3*aR*, 6*aS*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxybenzyl)-2-oxo-ethyl]-4-*tert*-butyl-benzamide



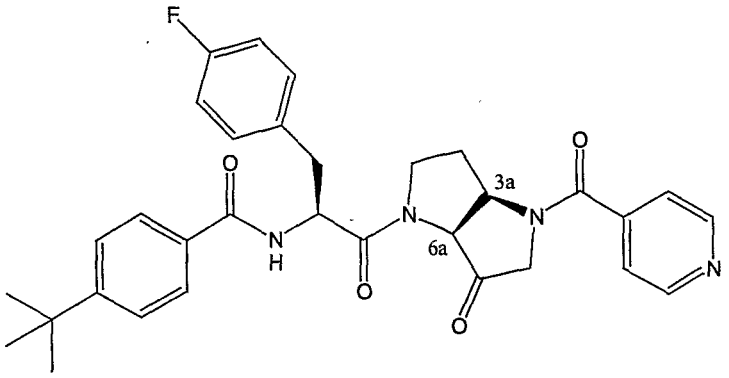
HPLC Rt = 16.0-17.1 mins (> 90%), HPLC-MS 554.3 $[M + H]^+$, 1129.5 $[2M + Na]^+$.

EXAMPLE 347. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



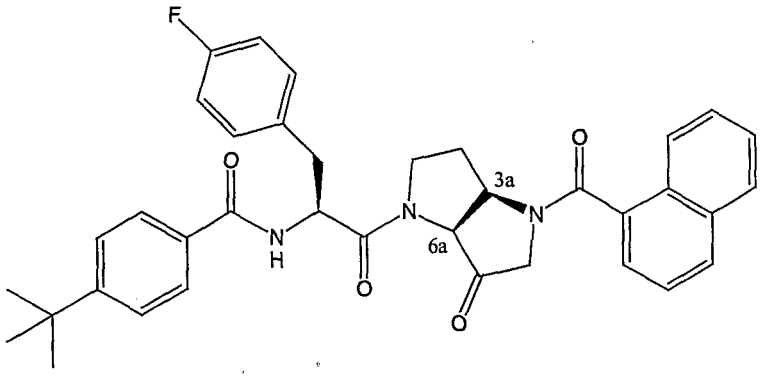
HPLC Rt = 16.82 mins (> 90%), HPLC-MS 557.2 $[M + H]^+$.

EXAMPLE 348. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



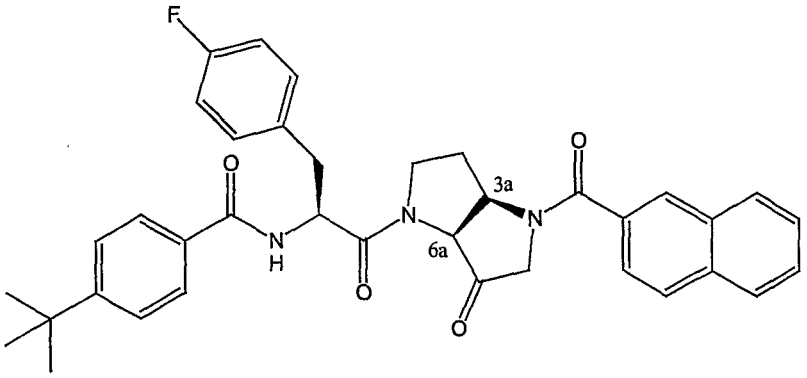
HPLC Rt = 16.44 mins (> 85%), HPLC-MS 557.2 $[M + H]^+$, 575.3 $[M + H + H_2O]^+$.

EXAMPLE 349. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-fluoro-benzyl)-2-[4-(naphthalene-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



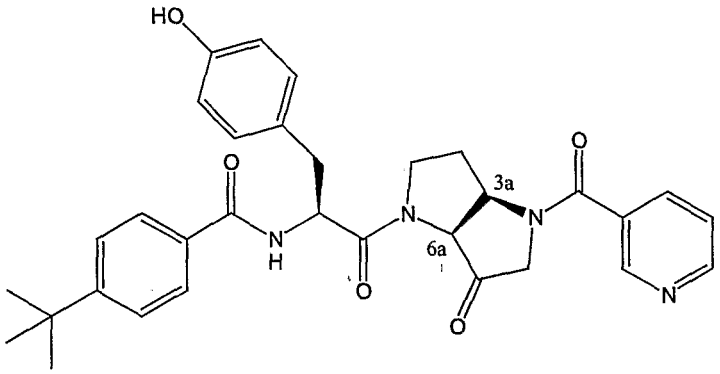
HPLC Rt = 19.6-20.8 mins (> 80%), HPLC-MS 606.1 $[M + H]^+$.

EXAMPLE 350. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-fluoro-benzyl)-2-[4-(naphthalene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



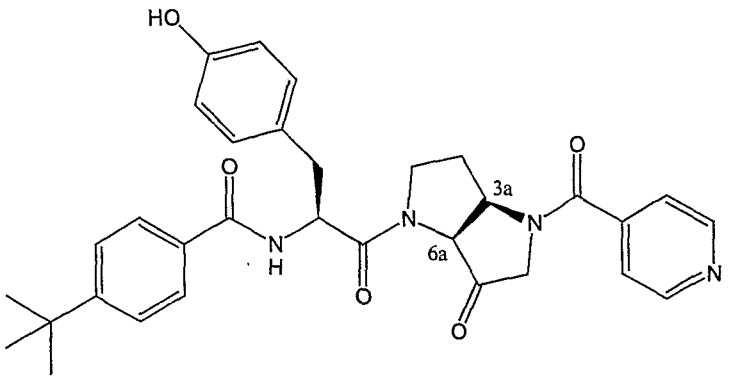
HPLC Rt = 21.0-22.0 mins (> 85%), HPLC-MS 606.1 $[M + H]^+$.

EXAMPLE 351. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



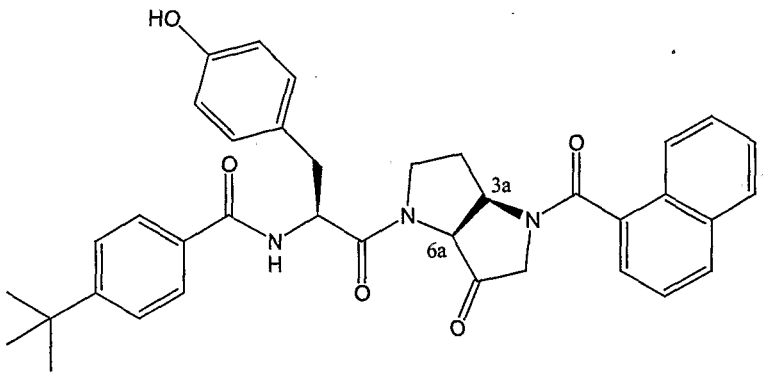
HPLC Rt = 14.27 mins (> 85%), HPLC-MS 555.3 $[M + H]^+$, 573.3 $[M + H + H_2O]^+$.

EXAMPLE 352. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



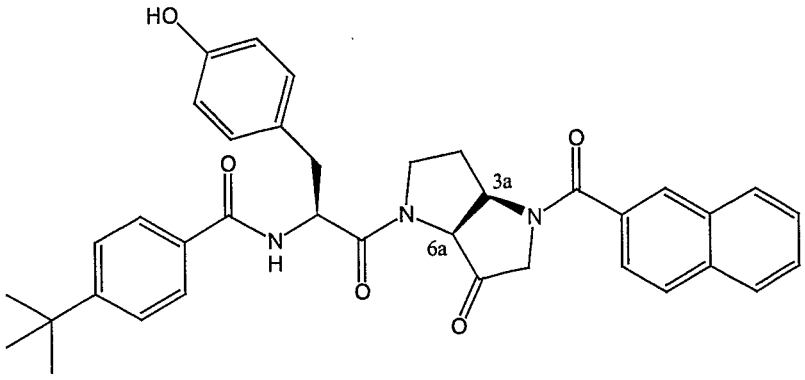
HPLC Rt = 14.35 mins (> 90%), HPLC-MS 555.2 $[M + H]^+$, 573.3 $[M + H + H_2O]^+$.

EXAMPLE 353. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(naphthalene-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



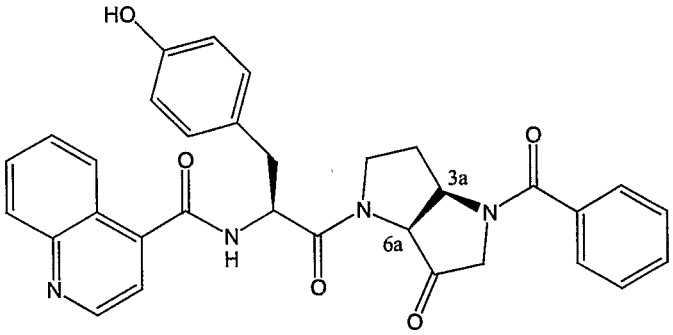
HPLC Rt = 17.8-18.7 mins (> 85%), HPLC-MS 604.2 $[M + H]^+$.

EXAMPLE 354. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(naphthalene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



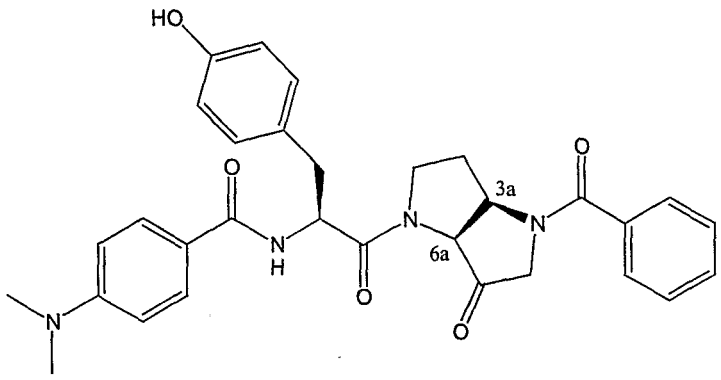
HPLC Rt = 17.3-18.2 mins (> 85%), HPLC-MS 604.1 $[M + H]^+$.

EXAMPLE 355. (3a*R*, 6a*S*)-Quinoline-4-carboxylic acid [(1*S*)-2-(4-benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-amide



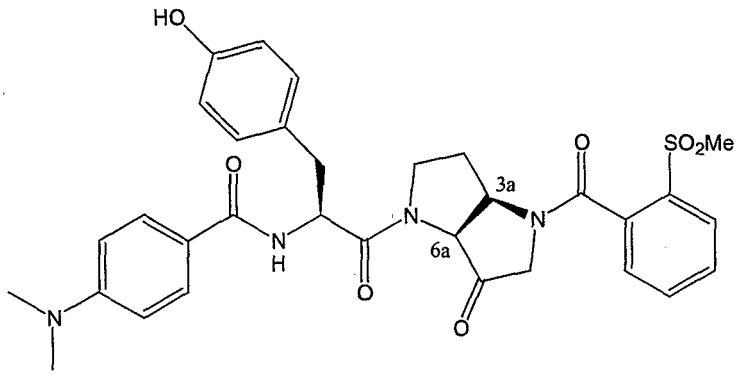
HPLC Rt = 10.10 mins (> 90%), HPLC-MS 549.2 $[M + H]^+$, 567.2 $[M + H + H_2O]^+$.

EXAMPLE 356. (3a*R*, 6a*S*)-*N*-[(1*S*)-2-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*] pyrrol-1-yl)-1-(4-hydroxy-benzyl)-2-oxo-ethyl]-4-dimethylamino-benzamide



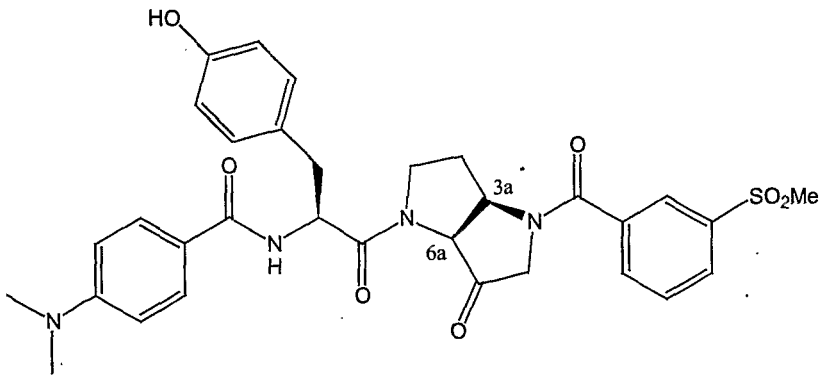
HPLC Rt = 10.34 mins (> 90%), HPLC-MS 541.2 $[M + H]^+$.

EXAMPLE 357. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(2-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



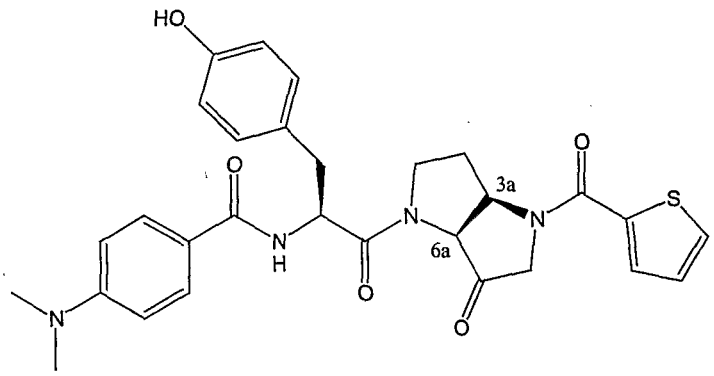
HPLC Rt = 9.78 mins (> 90%), HPLC-MS 619.2 $[M + H]^+$, 637.2 $[M + H + H_2O]^+$.

EXAMPLE 358. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-[4-(3-methanesulfonyl-benzoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-2-oxo-ethyl}-benzamide



HPLC Rt = 9.95 mins (> 80%), HPLC-MS 619.2 $[M + H]^+$, 637.2 $[M + H + H_2O]^+$.

EXAMPLE 359. (3a*R*, 6a*S*)-4-Dimethylamino-*N*-{(1*S*)-1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(thiophene-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide



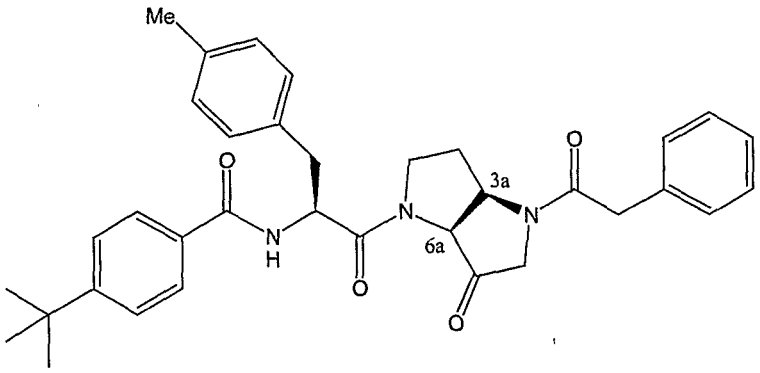
HPLC Rt = 10.69 mins (> 85%), HPLC-MS 547.2 $[M + H]^+$, 565.2 $[M + H + H_2O]^+$.

In addition, EXAMPLES 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 42, 43, 44, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 77, 79, 80, 81, 82, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 111, 113, 114, 115, 116, 117, 118, 128, 130, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 145, 147, 150, 151, 154,

156, 157, 158, 159, 160, 161, 162, 164, 165, 166, 167, 168, 170, 171, 172, 173, 174, 175, 180, 183, 184, 185, 190, 191, 192, 193, 194, 196, 197, 199, 200, 203, 204, 205, 206, 207, 208, 209, 210, 212, 214, 216, 217, 218, 220, 221, 223, 224, 226, 227, 228, 233, 235, 238, 240, 241, 242, 244, 245, 246, 247, 248, 249a, 249b, 249c, 254, 255, 256, 260, 261, 271, 286, 287, 288, 290, 292, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 307, 308, 309, 313, 314, 315, 316, 317, 318, 319, 321, 322, 323, 324, 325, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 342, 343, 344 and 345 have utility as inhibitors of cruzain and cruzipains with Ki less than 5000nM.

EXAMPLE 360 was prepared as detailed for EXAMPLE 1 substituting the appropriate carboxylic acids as required and is an inhibitor of *Leismania mexicana* CPB protease with Ki less than 5000nM;

EXAMPLE 360. (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-[(1*S*)-1-(4-methyl-benzyl)-2-oxo-2-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl)-ethyl]-benzamide



HPLC Rt = 19.5-20.6 mins (> 80%), HPLC-MS 566.3 $[M + H]^+$.

In addition, EXAMPLES 1, 2, 3, 5, 6, 13, 14, 16, 17, 20, 21, 24, 25, 26, 27, 28, 29, 31, 32, 34, 35, 37, 39, 42, 43, 44, 46, 47, 48, 50, 56, 57, 59, 60, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 82, 85, 86, 87, 88, 89, 90, 91, 92, 93, 95,

96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 128, 130, 132, 134, 135, 136, 137, 138, 139, 141, 142, 145, 147, 148, 150, 151, 154, 158, 159, 160, 161, 164, 165, 166, 167, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 185, 190, 191, 192, 193, 194, 201, 204, 207, 208, 209, 212, 213, 214, 215, 216, 220, 230, 233, 234, 235, 245, 246, 247, 248, 249a, 249b, 249c, 271, 278, 286, 295, 314, 315, 316, 318, 319, 329, 330, 331, 332 and 345 have utility as inhibitors of *Leismania mexicana* CPB protease with Ki less than 5000nM.

In addition, EXAMPLES 2, 7, 14, 15, 27, 28, 31, 34, 35, 39, 40, 41, 43, 46, 48, 54, 57, 58, 59, 60, 61, 73, 74, 77, 87, 90, 91, 99, 102, 103, 104, 113, 135, 141, 151, 158, 166, 173, 194, 247, 249a, 249b, 249c, 251, 252, 253, 254, 255, 258, 259, 261, 262, 264, 266, 267, 269, 271, 273, 275, 279, 281, 286, 290, 292, 296, 298, 299, 300, 301, 304, 305, 307, 308, 309, 310, 314, 315, 316, 323, 325, 327, 329 and 330 have utility as inhibitors of cathepsin B with Ki less than 5000nM.

Solution Phase Syntheses

Alternative strategies to the solid phase techniques described for EXAMPLES 1 → 360 above are broadly outlined in Schemes 15, 17 and 18. Here, building blocks may be prepared for solution phase syntheses for example 3-Oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester (analogue of compound **53**, Scheme 15), prepared in 7 steps as follows:

(1) Preparation of (2*S*, 3*S*) 3-Hydroxypyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester.

Boc anhydride (2.95 g, 13.5 mmol) was added to a stirred solution of the (2*S*, 3*S*)-3-hydroxypyrrolidine-2-carboxylic acid (1.61 g, 12.3 mmol) and sodium carbonate (1.3 g, 12.3 mmol) in a mixture of dioxane (25 ml) and water (12.3 ml). The mixture was stirred for 1.5 h at ambient temperature then evaporated under reduced pressure to afford a residue (~10 ml). The

residue was diluted with water (30 ml) then extracted with ethyl acetate (40 ml). The aqueous phase was acidified (pH ~ 2.5) with dilute aqueous hydrochloric acid (0.1 M) then extracted with chloroform (4 x 50 ml). The combined organic layers were dried (Na_2SO_4) and evaporated under reduced pressure to afford (2*S*, 3*S*)-3-hydroxypyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester as a white crystalline solid (2.39 g, ~85%), HPLC-MS (single main peak, 254.1 $[M + Na]^+$ and 485.2 $[M + H]^+$).

(2) Preparation of (2*S*, 3*S*) 3-Hydroxypyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-butyl ester

A solution of allyl bromide (26 ml, 301 mmol) and tricaprylmethylammonium chloride (38.4 ml, 86.1 mmol) in dichloromethane (307 ml) was added to a stirred solution of (2*S*, 3*S*) 3-hydroxypyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester (19.89 g, 86.1 mmol) and sodium hydrogen carbonate (7.23 g, 86.1 mmol) in water (307 ml). The biphasic mixture was vigorously stirred overnight then diluted with water (100 ml) and the product extracted into dichloromethane (3 x 200 ml). The combined organic layers were dried (Na_2SO_4) and evaporated under reduced pressure to afford a residue. Flash chromatography of the residue over silica gel (400 g) using ethyl acetate : heptane (1 : 4) as the eluent afforded (2*S*, 3*S*) 3-hydroxypyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-butyl ester (9.4 g, 40 %), TLC (single spot, R_f = 0.28, 50% ethyl acetate in heptane), HPLC-MS (single main peak, 294.1 $[M + Na]^+$, 565.3 $[2M + Na]^+$); δ_H (400 MHz, $CDCl_3$) 1.41 and 1.46 (combined integration 9H, 2 x s, $C(CH_3)_3$ of geometric isomers), 1.87-1.97 (1H, m, 4-H), 2.06-2.18 (1H, m, 4-H), 2.28-2.36 (1H, m, O*H*), 3.55-3.71 (2H, m, 5-H_2), 4.20 and 4.32 (combined integration of 1H, 2 x s, 2-H geometric isomers), 4.46 (1H, br. s, 3-H), 4.57-4.73 (1H, m, OCH_2), 5.25-5.37 (2H, m, OCH_2CHCH_2) and 5.86-5.98 (1H, m, OCH_2CHCH_2); δ_C (100 MHz, $CDCl_3$) 28.6 and 28.7 ($C(CH_3)_3$), 32.5 and 32.95 (C-4), 44.5 and 44.9 (C-5), 66.2 (OCH_2), 68.3 (C-2), 74.6 and 75.7 (C-3), 80.6

($OC(CH_3)_3$), 118.95 and 119.4 (OCH_2CHCH_2), 131.9 (OCH_2CHCH_2), 154.25 and 154.9 (NCO_2), 170.8 and 171.1 (CO_2Allyl).

(3) Preparation of (2*S*,3*R*) 3-Azido-pyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-buytl ester

Diethyl azodicarboxylate (0.62 ml, 4.0 mmol) was added dropwise over 25 minutes to a stirred solution of (2*S*, 3*S*) 3-hydroxypyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-butyl ester (895 mg, 3.3 mmol) and triphenylphosphine (1.08 g, 4.1 mmol) in tetrahydrofuran (30 ml) at 0°C under an atmosphere of argon. The solution was stirred for 5 minutes then diphenylphosphoryl azide (0.89 ml, 4.1 mmol) was added dropwise over 10 minutes. The mixture was stirred for 10 minutes at 0°C then for 24 hours at ambient temperature before removing solvents *in vacuo* to obtain a residue which was purified by flash chromatography over silica gel eluting with a gradient of heptane : ethyl acetate 3:1 → 1:1. Appropriate fractions were combined and the solvents removed *in vacuo* to obtain (2*S*, 3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-tert-butyl ester as a colourless oil (850 mg, 88%) which was contaminated with ~5% of 4,5-dihydropyrrole-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-butyl ester. TLC (main spot, Rf = 0.70, heptane : ethyl acetate 1:1), HPLC-MS 197.1 $[M\text{-Boc}+H]^+$, 241.1 $[M\text{-Bu}+2H]^+$, 319.2 $[M+Na]^+$, 615.3 $[2M + Na]^+$; δ_H ($CDCl_3$ at 298K); (Doubling up of peaks in spectrum due to restricted rotation around Fmoc amide bond) 1.45 and 1.49 (1.8 and 1.2H respectively, $\underline{Me}_3C$, each s), 2.10-2.24 (2H, H-4, m), 3.44-3.52 and 3.60-3.73 (each 1H, H-5, m), 4.31-4.40 (1H, H-3, m), 4.45 and 4.54 (0.6 and 0.4H respectively, H-2, each d, J = 7.6Hz), 4.66-4.78 (2H, $C\underline{H}_2CH=CH_2$, m), 5.28-5.33 (1H, $CH_2CH=C\underline{H}_2$, m), 5.42 (1H, $CH_2CH=C\underline{H}_2$, dd, J = 17.2 and 3.7Hz), 5.91-6.04 (1H, $CH_2C\underline{H}=CH_2$); δ_C ($CDCl_3$ at 298K); 28.40 (u, $\underline{Me}_3C$), 29.40/30.18 (d, C-4), 44.22/44.62 (d, C-5), 61.21/61.86/61.98/62.23 (u, C-2 and C-3), 65.81/66.10 (d, $\underline{C}H_2CH=CH_2$),

80.76/81.24 (q, $Me_3\underline{C}$), 118.79/119.21 (d, $CH_2CH=\underline{C}H_2$), 131.82/131.87 (u, $CH_2\underline{C}H=CH_2$), 153.53/154.11 (q, O$\underline{C}$ON), 169.19/169.38 (q, $\underline{C}O_2CH_2$).

(4) Preparation of (2*S*, 3*R*) 3-Benzyloxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-propyl ester

Palladium (10 wt. % on carbon powder, 300 mg) was added portion wise to a solution of (2*S*, 3*R*) 3-azidopyrrolidine-1,2-dicarboxylic acid 2-allyl ester 1-*tert*-butyl ester (790 mg, 2.66 mmol) in ethanol (20 ml) at 0 °C. The mixture was stirred for 2 h under an atmosphere of hydrogen at ambient temperature, then filtered over celite and concentrated *in vacuo* to afford a residue (540 mg). The residue was suspended in dioxane (6 ml) then a solution of sodium carbonate (529 mg, 5 mmol) in water (12 ml) added. The mixture was cooled to 0 °C then a solution of benzyloxy chloroformate (0.314 ml) in dioxane (6 ml) added portion wise over 40 min at 0 °C. The mixture was stirred for 30 min at 0 °C then at ambient temperature for 40 min. Water (150 ml) was added and the products extracted with chloroform (3 x 100 ml), dried (Na_2SO_4) and evaporated under reduced pressure to afford a residue. Flash chromatography of the residue over silica (100 g) using ethyl acetate : heptane (1 : 4) as the eluent afforded (2*S*, 3*R*) 3-benzyl oxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-propyl ester (240 mg, 22 %), TLC (single spot, R_f = 0.47, 50% ethyl acetate in heptane); analytical HPLC R_t = 18.06 min, HPLC-MS (single main peak, 429.2 $[M + Na]^+$, 835.4 $[2M + Na]^+$); δ_H (400 MHz, $CDCl_3$) 0.90 (3H, t, J = 7.3 Hz, CH_3), 1.41 and 1.45 (combined integration 9H, 2 x s, $C(CH_3)_3$ of geometric isomers), 1.46-1.66 ($OCH_2CH_2CH_3$), 1.89-2.00 (1H, m, 4-H_2), 2.12-2.25 (1H, m, 4-H_2), 3.32-3.46 (1H, m, 5-H), 3.55-3.72 (1H, m, 5-H), 3.99-4.07 (1H, m, 3-H), 4.46-4.55 ($OCH_2CH_2CH_3$), 4.88-5.17 (combined integration of 3H, m, 2-H and OCH_2Ph), and 7.29-7.42 (6H, m, C_6H_5 and N*H*); δ_C (100 MHz, $CDCl_3$) 10.5 (CH_3), 22.10 (OCH_2CH_2), 28.41 and 28.50 ($C(CH_3)_3$), 29.4 and 30.5 (C-4), 43.9 and 44.3 (C-5), 52.8 (C-3), 60.5 and 61.3 (C-2), 66.9, 67.0 and

67.2 (OCH_2Ph and OCH_2), 80.5 ($OC(CH_3)_3$), 128.3, 128.4 and 128.7 (*o*-, *m*- and *p*-C_6H_5), 136.2 ($NHCOOCH_2C$), 153.8 and 155.7 (NCO_2 and $NHCO_2$) and 171.1 (CO_2Propyl).

(5) Preparation of (2*S*, 3*R*) 3-Benzyloxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester

A solution of sodium hydroxide (185 mg, 4.6 mmol) in water (1.6 ml) was added to a solution of (2*S*, 3*R*) 3-benzyloxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester 2-propyl ester (229 mg, 0.56 mmol) in ethanol (6 ml). The mixture was stirred for 8 h at ambient temperature. Water (50 ml) was added and the ethanol removed under reduced pressure. The aqueous residue was acidified to pH = 2 by the addition of dilute aqueous hydrochloric acid (0.1 M). The mixture was then extracted with ethyl acetate (3 x 50 ml), dried (Na_2SO_4) and evaporated under reduced pressure to afford (2*S*, 3*R*) 3-benzyloxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester (200 mg, 98%), analytical HPLC R_t = 14.03 min, HPLC-MS (single main peak, 387.2 $[M + Na]^+$, 751.4 $[2M + Na]^+$); δ_H (400 MHz, $CDCl_3$) 1.35 and 1.37 (combined integration 9H, 2 x s, $C(CH_3)_3$ of geometric isomers), 1.86-2.15 (2H, m, 4-H_2), 3.14-3.71 (2H, m, 5-H_2), 4.20-4.49 (2H, m, 2-H and 3-H), 5.02-5.22 (2H, m, OCH_2Ph), and 7.18-7.37 (6H, m, C_6H_5 and N*H*); δ_C (100 MHz, $CDCl_3$) 28.3, 28.4, 28.5 and 29.2 ($C(CH_3)_3$ and C-4), 43.8 and 44.3 (C-5), 52.3 and 53.1 (C-3), 61.0 and 61.4 (C-2), 67.2 and 68.4 (OCH_2Ph), 80.6 and 80.8 ($OC(CH_3)_3$), 128.2, 128.5 and 128.6 and 128.7 (*o*-, *m*- and *p*-C_6H_5), 135.5 ($NHCOOCH_2C$), 153.8 and 154.3 (NCO_2), 158.6 ($NHCO_2$), 175.6 and 175.9 (CO_2H).

(6) Preparation of (2*S*, 3*R*) 3-Benzyloxycarbonylamino-2-(2-diazoacetyl) pyrrolidine-1-carboxylic acid *tert*-butyl ester

(2*S*, 3*R*) 3-benzyloxycarbonylaminopyrrolidine-1,2-dicarboxylic acid 1-*tert*-butyl ester (161 mg, 0.443 mmol) was dissolved with stirring in anhydrous dichloromethane (18 ml). The reaction was flushed with nitrogen and cooled to –15 °C. *iso*-Butylchloroformate (0.063 ml, 0.487 mmol) in anhydrous dichloromethane (1.5 ml) and *N*-methylmorpholine (0.097 ml, 0.886 mmol) in anhydrous dichloromethane (1.5 ml) were added simultaneously in 0.5 ml aliquots over 15 min. The mixture was stirred for 45 min at –15 °C then ethereal diazomethane [generated from addition of diazald (4.7 g, ~15 mmol) in diethyl ether (75 ml) onto sodium hydroxide (5.25 g) in water (7.5 ml) / ethanol (15 ml) at 60 °C] was added to the activated amino acid solution. The mixture was allowed to warm to ambient temperature and stirred for 24 h. A few drops of acetic acid were added to the mixture, followed by diethyl ether (200 ml). The ethereal layer was washed with saturated aqueous sodium hydrogen carbonate (80 ml), dried (Na_2SO_4) and the solvents removed under reduced pressure to give a yellow residue (300 mg). Flash chromatography of the residue over silica (35 g) using ethyl acetate : heptane (1 : 3) afforded (2*S*, 3*R*) 3-benzyloxycarbonylamino-2-(2-diazoacetyl)pyrrolidine-1-carboxylic acid *tert*-butyl ester (150 mg, 87%), TLC (single spot, R_f = 0.29, 50% ethyl acetate in heptane); analytical HPLC R_t = 15.15 min, HPLC-MS (single main peak, 411.2 $[M + Na]^+$, 799.4 $[2M + Na]^+$).

(7) Preparation of (2*S*, 3*R*) 3-Oxohexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester

A solution of (2*S*, 3*R*) 3-benzyloxycarbonylamino-2-(2-diazoacetyl) pyrrolidine-1-carboxylic acid *tert*-butyl ester (90 mg, 0.23 mmol) was added over 1 h to a refluxing solution of rhodium(II) acetate dimer (2 mg, 0.0046 mmol) in dichloromethane (3 ml). The mixture was heated under reflux for 2 h and the solvent then removed *in vacuo*. The residue was diluted with tetrahydrofuran (40 ml) then filtered through a pad of celite. The filtrate was then concentrated *in vacuo* to afford a residue (106 mg).

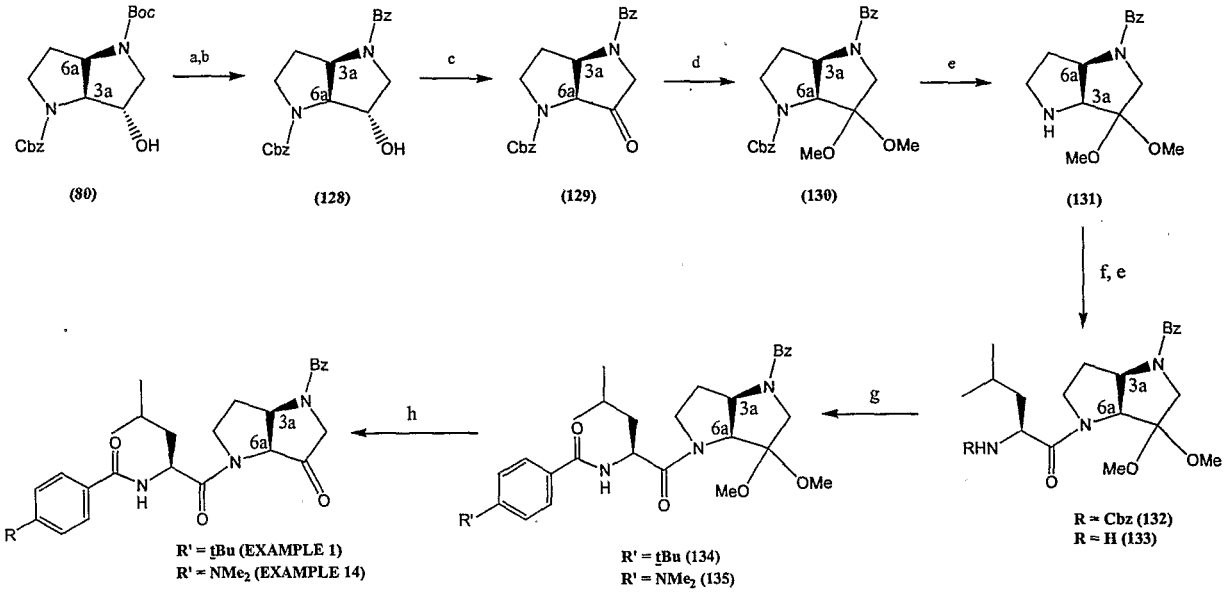
Flash chromatography of the residue over silica (35 g) using ethyl acetate : heptane (1 : 3) afforded (2*S*, 3*R*) 3-oxohexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester (14 mg, 17 %), TLC (two possible rotameric spots, R_f = 0.30 and 0.23, 50% ethyl acetate in heptane), analytical HPLC R_t = 15.479 min (~60 %), 16.393 (~10 %), 17.197 (~10 %), 18.085 (~10 %) and 21.665 (~10 %); HPLC-MS (4 main peaks, 361.0 = $[M + H]^+$, 379 = $[M + H_3O]^+$, 401.0 $[M + H_2O + Na]^+$, $[2M + H]^+$ = 721.0, $[2M + Na]^+$ = 743.0, $[2(M + H_2O) + Na]^+$ = 779.0); δ_H (500 MHz, $CDCl_3$) 1.40-1.50 (9H, m, $C(CH_3)_3$), 1.78-1.86 (1H, m, NCH_2CH_2), 2.30-2.47 (1H, m, NCH_2CH_2), 3.90-4.06 (2H, m, NCH_2), 5.05-5.20 (4H, m, OCH_2, BocNC*H*CO and CbzNC*H*), 5.44 (1H, d, *J* = 2.2 Hz, $CbzNCH_2$), 5.56 (1H, br. s, $CbzNCH_2$) and 7.30-7.37 (5H, m, C_6H_5); δ_C (126 MHz, $CDCl_3$) 27.5 ($C(CH_3)3$), 29.6 and 32.2 (NCH_2CH_2), 57.7 (CbzNCH), 59.1 (NCH_2), 67.0 (OCH_2), 77.2 (BocNCH), 83.5 ($OC(CH_3)_3$), 110.7 ($CbzNCH_2$), 128.0, 128.2 and 128.5 (*o*-, *m*- and *p*-C_6H_5), 136.1 (OCH_2C of Cbz), 147.6, 151.4 155.7 and 167.1 (2xNCO_2 and $CbzNCH_2CO$).

(8) Preparation of (2*S*, 3*R*) 3-Oxohexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester hydrochloride salt (analogue of compound 54).

(2*S*, 3*R*) 3-oxohexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 1-benzyl ester 4-*tert*-butyl ester (9 mg, 0.025 mmol) was dissolved in 4M HCl in dioxane (1.25 ml) then stirred for 1 h at room temperature. The mixture was concentrated *in vacuo* then toluene (10 ml) added. The mixture was concentrated once again *in vacuo* and the procedure repeated to afford a residue (10 mg, ~100 %), HPLC-MS (single main peak, 261.1 $[M + H]^+$ and 279.1 $[M + H_3O]^+$).

Alternatively, a useful building block for solution phase synthesis is (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 4-benzyl

ester 1-*tert*-butyl ester **(80)** described earlier in Scheme 20. The utility of building block **(80)** is detailed in alternative syntheses of EXAMPLES 1 and 14, through Scheme 26, which is an example of the general synthetic strategy detailed in Scheme 18.



Scheme 26. (a) 4N HCl in 1,4-dioxane, 30mins, RT. (b) Benzoic anhydride, 4-methylmorpholine, DMF, RT, 1hr. (c) Dess-Martin periodinane, DCM. (d) Trimethylorthoformate, anhydrous MeOH, cat. *p*-TsOH, under Ar, 65°C. (e) Pd-C / H_2, ethanol / methanol. (f) 1eq Cbz-Leu-F, DMF, RT. (g) 1.05eq R-COOH, HBTU, HOBT, NMM, DMF, RT. (h) 95% Trifluoroacetic acid / 5% water, RT.

Preparation of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester (128)

A solution of HCl in 1,4-dioxane (4.0M, 11 ml, 44 mmol) was added to (3*S*, 3a*S*, 6a*R*)-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1,4-dicarboxylic acid 4-benzyl ester 1-*tert*-butyl ester **(80)** (450 mg, 1.24 mmol). The solution was stirred for 65 minutes whereupon a white suspension formed. The solvents were removed *in vacuo* and the residue azeotroped with diethyl ether (3x 15 ml) and then dimethylformamide (10 ml) and benzoic anhydride (295 mg, 1.31 mmol) added.

The solution was placed under an atmosphere of argon then 4-methylmorpholine (0.29 ml, 2.6 mmol) was added to the solution dropwise whilst stirring over 0.5 minutes. The mixture was stirred for 1.75 hours then the solvents were removed *in vacuo*. The residue was dissolved in ethyl acetate (100 ml) then washed with saturated aqueous sodium hydrogen carbonate solution (100 ml), pH 3 hydrochloric acid (100 ml) then brine (100 ml). The organic layer was dried (Na_2SO_4) and evaporated *in vacuo* to afford (3a*R*, 6*S*, 6a*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(128)** as a pale yellow gum (465 mg), which was used without further purification. Analytical HPLC R_t = 14.967 min; HPLC-MS 367.1 $[M + H]^+$, 733.1 $[2M + H]^+$; Elemental analysis $C_{21}H_{22}N_2O_4$.0.4EtOAc req.(fnd.) % C 67.62 (67.73), % H 6.33 (6.17), % N 6.98 (7.08); HRMS $C_{21}H_{22}N_2O_4Na$ req. 389.1477, fnd. 389.1476 (-0.40ppm); d_H (500 MHz, $CDCl_3$) approximately 3 : 1 mixture of rotamers, 2.10-2.21 (1H, m, BzNCHCH_2), 2.24-2.36 (1H, m, BzNCHCH_2), 3.20-3.35 (1H, m, CbzNCH_2), 3.35-3.66 (2H, m, BzNCH_2), 3.74-3.80 (1H, m, CbzNCH_2), 4.16-4.20 (1H, m, CbzNC*H*), 4.38-4.42 (1H, br. s, C*H*OH), 4.94-5.04 (1H, m, BzNC*H*), 5.08-5.22 (2H, m, OCH_2Ph), 7.30-7.52 (10H, aromatic C*H*); d_C (125 MHz, $CDCl_3$) 31.02, 30.40 (BzNCH$\underline{C}H_2$), 45.73, 45.86 (CbzN$\underline{C}H_2$), 56.43, 56.74 (BzN$\underline{C}H_2$), 60.58, 61.49 (BzN$\underline{C}$H), 66.68, 67.33 (O$\underline{C}H_2$Ph), 66.92, 67.76 (CbzN$\underline{C}$H), 73.01, 73.86 ($\underline{C}$HOH), 126.77, 127.48, 127.99, 128.23, 128.28, 128.45, 128.56, 128.87, 130.02, 130.38 and 134.53 ($\underline{C}$H aromatics), 136.16, 136.23, 136.33 (aromatic quaternary), 154.26, 154.97 (Cbz$\underline{C}$=O), 170.06, 171.19 (Bz$\underline{C}$=O).

Preparation of (3a*R*, 6a*S*)-4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester (129)

(3a*R*, 6*S*, 6a*S*)-4-Benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(128)** (0.78 g, 2.13 mmol) was dissolved in dichloromethane (20 ml) with stirring under argon. Dess-Martin periodinane (1.804 g, 4.26 mmol) was added and the mixture stirred for 16 hours. The mixture was concentrated *in vacuo* and the residue purified by flash chromatography over silica, eluting with

ethyl acetate : heptane mixtures to give (3a*R*, 6a*S*)-4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*] pyrrole-1-carboxylic acid benzyl ester **(129)** (0.61 g, 78%) as an off-white gum. TLC (R_f = 0.27, EtOAc : heptane 3 : 1), analytical HPLC single main peak, R_t = 14.65-16.30 min., HPLC-MS 365.1 $[M + H]^+$, 383.1 $[M + H + H_2O]^+$; Elemental analysis $C_{21}H_{20}N_2O_4.1.2H_2O$ req.(fnd.) % C 65.38 (65.12), % H 5.85 (5.65), % N 7.26 (6.95); HRMS $C_{21}H_{20}N_2O_4Na$ req. 387.1321, fnd. 387.1324 (0.76ppm); δ_C (125 MHz, $CDCl_3$) 30.41, 30.89, 31.23 (BzNCH$\underline{C}H_2$), 45.75 (CbzN$\underline{C}H_2$), 54.55, 63.04 (BzN$\underline{C}$H + CbzN$\underline{C}$H), 57.91, 58.45, 58.99, 59.73 (BzN$\underline{C}H_2$), 67.60, 68.07 (O$\underline{C}H_2$Ph), 127.00, 127.38, 127.48, 127.98, 128.11, 128.48, 128.62, 128.74, 130.48, 130.83 ($\underline{C}$H aromatics), 135.07, 136.14 (quaternary aromatics), 154.54, 155.03 (Cbz$\underline{C}O_2$), 170.58 (Bz$\underline{C}$O), 204-207 (broad, $\underline{C}$=O).

Preparation of (3a*R*, 6a*S*)-4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*] pyrrole-1-carboxylic acid benzyl ester (130)

(3a*R*, 6a*S*)-4-Benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(129)** (0.60 g, 1.65 mmol) was dissolved in methanol (10 ml) with stirring. Trimethylorthoformate (1.8 ml, 16.5 mmol) was added followed by *para*-toluenesulfonic acid (40 mg) and the mixture heated under argon at 65 °C for 16 hours. The mixture was reduced *in vacuo* to leave a dark oil (0.8 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3a*R*, 6a*S*)-4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(130)** (0.52 g, 77%) as a fine white crystalline solid. TLC (R_f= 0.40, EtOAc : heptane 3 : 1), analytical HPLC single main peak, R_t = 18.22 min., HPLC-MS 411.1 $[M + H]^+$, 433.1 $[M + Na]^+$, 843.1 $[2M + Na]^+$; HRMS $C_{23}H_{26}N_2O_5Na$ req. 433.1739, fnd. 433.1727 (-2.94ppm); δ_H (500 MHz, $CDCl_3$) 1.96-2.07, 2.15-2.22 (2H, m, BzNCHCH_2), 3.04-3.42 (6H, m, 2x OCH_3), 3.25 (1H, m, CbzNCH_2), 3.4 (1H, m, BzNCH_2), 3.58-3.67 (1H, m, BzNCH_2), 3.96-4.07 (1H, m, CbzNCH_2), 4.35-4.58 (1H, m, CbzNCH), 4.98-5.26 (3H, BzNCH+ OCH_2Ph), 7.28-7.49 (10H aromatics); δ_C (125 MHz, $CDCl_3$) 32.27, 32.59 (BzNCH$\underline{C}H_2$), 46.74 (CbzN$\underline{C}H_2$), 49.36, 51.10, 51.59 (2x O$\underline{C}H_3$), 54.59, 56.08

(BzNCH$_2$), 60.77, 61.08 (BzNCH), 62.47 (CbzNCH), 67.28 (OCH$_2$Ph), 106.76, 107.02 (C(OCH$_3$)$_2$), 126.84, 127.35, 127.90, 128.06, 128.39, 130.05, 130.38 (CH aromatics), 135.91, 136.48 (quaternary aromatics), 155.44 (CbzCO$_2$), 169.54 (BzCO).

Preparation of (3a*S*, 6a*R*)-(3,3-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenylmethanone (131)

Methanol (15 ml) was added cautiously dropwise to a stirred mixture of (3a*R*, 6a*S*)-4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(130)** (0.48 g, 1.17 mmol) and 10% palladium on charcoal (100 mg) at 0 °C under an atmosphere of argon over 10 minutes. The argon was then replaced by an atmosphere of hydrogen and stirring continued at ambient temperature for 85 minutes before replacing the hydrogen with argon and adding ethanol (30 ml). The mixture was filtered under reduced pressure through celite and the filter cake washed with methanol (25 ml) then ethanol (70 ml). Solvents were removed from the filtrate *in vacuo* to obtain (3a*S*, 6a*R*)-(3,3-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl) phenylmethanone **(131)** as a colourless oil (340 mg), which was used without further purification. HPLC-MS 277.1 $[M + H]^+$, 553.2 $[2M + H]^+$.

Preparation of (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrol [3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester (132)

(i) Preparation of Cbz-L-Leucine Fluoride

Cbz-L-Leucine (1.115 g, 4.2 mmol) was dissolved in dichloromethane (50 ml) with stirring under argon. (Diethylamino)sulfur trifluoride (DAST, 792 µl, 6.0 mmol) was added and the mixture stirred for 40 minutes. Ice-cooled water (200 ml) was added to the mixture and the organic layer separated, dried (Na_2SO_4) and reduced *in vacuo* to a mobile tan oil (1.14 g). An analytical sample, pre-treated with 10% pyridine in methanol for 15 minutes gave HPLC-MS 266.1 $[M + H]^+$

(acid, < 5%), 280.1 $[M + H]^+$, 302.1 $[M + Na]^+$, 581.1 $[2M + Na]^+$ (methyl ester, ~ 95%).

(ii) Crude (3a*S*, 6a*R*)-(3,3-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenyl methanone **(131)** (~ 1.17 mmol) was dissolved in anhydrous dimethylformamide (5 ml) with stirring. Cbz-L-Leucine fluoride (0.33 g, 1.23 mmol) was added and the mixture stirred under argon for 1 hour. The mixture was reduced *in vacuo* to a semi-mobile dark oil (~ 1.0 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydro pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester **(132)** (0.55 g, 90%) as an off-white crystalline solid. TLC (R_f = 0.35, EtOAc : heptane 3 : 1), analytical HPLC single main peak, R_t = 19.396 min., HPLC-MS 524.1 $[M + H]^+$, 546.1 $[M + Na]^+$, 1069.2 $[2M + Na]^+$; Elemental analysis $C_{29}H_{37}N_3O_6$ req.(fnd.) % C 66.52 (66.26), % H 7.12 (7.30), % N 8.02 (7.86); HRMS $C_{29}H_{37}N_3O_6Na$ req. 546.2580, fnd. 546.2584 (0.67ppm); δ_H (500 MHz, $CDCl_3$) 0.92-1.04 (6H, m, 2x Leu δCH_3), 1.45-1.55 (2H, m, Leu βCH_2), 1.73-1.84 (1H, m, Leu γCH), 1.92-1.99, 2.10-2.16, 2.22-2.30 (2H, 4 : 6 : 10, m, $BzNCHCH_2$), 2.94, 3.19, 3.23 and 3.40 (6H total, each s, $C(OCH_3)_2$), 3.14-3.38 (2H, m, 1x $BzNCH_2$ and 1x $CbzLeuNCH_2$), 3.60-3.68 (1H, 4 : 6, each d, J = 12 Hz, 1x $BzNCH_2$), 4.03-4.10, 4.11-4.18 (1H, 4 : 6, m, 1x $CbzLeuNCH_2$), 4.33 (0.4H, d, J = 6.3 Hz, 0.4x CbzLeuNC*H*), 4.5-4.65 (0.6H, m, 0.6x Leu αCH), 4.82 (0.6H, d, J = 6.45 Hz, 0.6x CbzLeuNC*H*), 4.87-4.93 (0.4H, m, 0.4x Leu αCH), 5.0-5.14 (3H, m, $BzNCH + OCH_2Ph$), 5.42 (0.6H, d, J = 8.3 Hz, LeuN*H*), 5.57 (0.4H, d, J = 8.9 Hz, LeuN*H*), 7.3-7.5 (10H, aromatics); δ_C (125 MHz, $CDCl_3$) 21.99, 22.20, 22.67, 23.06, 23.67 (2x Leu $\delta\underline{C}H_3$), 24.37, 24.57 (Leu $\gamma\underline{C}H$), 31.58, 31.86, 33.26 ($BzNCH\underline{C}H_2$), 42.78 (Leu $\beta\underline{C}H_2$), 44.12, 45.79, 47.05 ($CbzLeuN\underline{C}H_2$), 49.31, 49.99 (1x $O\underline{C}H_3$), 51.18, 51.27, 51.30, 51.47 (1x $O\underline{C}H_3$ + Leu $\alpha\underline{C}H$), 55.55, 57.03 ($BzN\underline{C}H_2$), 59.69, 61.32 ($BzN\underline{C}H$), 60.30, 61.04 ($CbzLeuN\underline{C}H$), 66.39, 66.88($O\underline{C}H_2Ph$), 106.27, 107.11 ($\underline{C}(OCH_3)_2$), 126.84, 127.32, 127.42, 127.87, 127.94, 128.09, 128.43, 128.48, 130.18, 130.43, 130.50

(CH aromatics), 135.68, 135.81, 136.28, 136.73 (quaternary aromatics), 155.58, 156.21 (CbzCO$_2$), 169.56, 169.62 (BzCO), 172.35, 173.36 (Leu C=O).

Preparation of (2*S*, 3a*R*, 6a*S*)-2-amino-1-(4-benzoyl-6,6-dimethoxyhexahydro pyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one (133)

Methanol (15 ml) was added cautiously dropwise to 10% palladium on charcoal (75 mg) at 0 °C under an atmosphere of argon over 10 minutes whilst stirring followed by a solution of (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6,6-dimethoxy hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester **(132)** (0.52 g, 0.99 mmol) in methanol (15 ml). The argon was then replaced by an atmosphere of hydrogen and stirring continued at ambient temperature for 5.5 hours. A suspension of 10% palladium on charcoal (15 mg) in methanol (1 ml) was added and stirring continued for 2.25 hours. The hydrogen was replaced by argon then ethanol (100 ml) was added before filtering the mixture through celite. The filter cake was washed with ethanol (100 ml) then the filtrate separated into two equal portions before concentrating separately *in vacuo* to obtain two identical batches of (2*S*, 3a*R*, 6a*S*)-2-amino-1-(4-benzoyl-6,6-dimethoxy hexahydropyrrolo[3,2-*b*]pyrrol-1-yl)-4-methyl pentan-1-one **(133)**. TLC (Single spot, R_f = 0.05, EtOAc : heptane 9 : 1), HPLC-MS 390.2 $[M + H]^+$, 801.2 $[2M + Na]^+$ as white solids which were contaminated with approximately 5% of (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester **(132)** starting material. Each batch was used without further purification (see preparations of **(134)** and **(135)** below).

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxy hexa hydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl benzamide (134)

4-Methylmorpholine (0.109 ml, 0.994 mmol) was added to a solution of HBTU (189 mg, 0.497 mmol), 1-hydroxybenzotriazole monohydrate (76 mg, 0.497

mmol) and 4-(*tert*-butyl)benzoic acid (88 mg, 0.497 mmol) in dimethylformamide (12.5 ml). The solution was stood for 5 minutes then added to (2*S*, 3a*R*, 6a*S*)-2-amino-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one **(133)** (prepared as above, 0.497 mmol). The mixture was stirred at ambient temperature for 1 hour 50 minutes then the solvents were removed *in vacuo*. The residue was dissolved in dichloromethane (60 ml) then washed with pH 3 hydrochloric acid (40 ml), saturated aqueous sodium hydrogen carbonate solution (40 ml) and brine (40 ml), then dried (Na_2SO_4) and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 50 : 50 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydro pyrrolo [3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl benzamide **(134)** as a white solid (230 mg) which contained approximately 5% of (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl] carbamic acid benzyl ester **(132)** The latter compound was removed prior to the hydrolysis step (i.e. preparation of EXAMPLE 1 below) by dissolving (220 mg) in methanol (11 ml) then adding to a stirred suspension of 10% palladium on charcoal (70 mg) in ethanol (11 ml) under an atmosphere of argon at 0 °C. The argon was then replaced by hydrogen and the mixture stirred at ambient temperature for 80 minutes, then water (11 ml) was added and the mixture filtered through celite. The filter cake was washed with ethanol (200 ml) then the filtrate concentrated *in vacuo* to give an oily solid (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide **(134)** (203 mg) which was used without further purification. TLC (Single spot, R_f = 0.65, EtOAc in heptane 9 : 1), analytical HPLC R_t = 21.412 min; HPLC-MS 550.2 $[M + H]^+$; Elemental analysis $C_{32}H_{43}N_3O_5$ req.(fnd.) % C 69.92 (69.52), % H 7.88 (8.12), % N 7.64 (7.40); HRMS $C_{32}H_{44}N_3O_5$ req. 550.3281, fnd. 550.3284 (0.55ppm).

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydro pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-dimethylaminobenzamide (135)

4-Methylmorpholine (0.109 ml, 0.994 mmol) was added to a solution of HBTU (189 mg, 0.497 mmol), 1-hydroxybenzotriazole monohydrate (76 mg, 0.497 mmol) and 4-(dimethylamino)benzoic acid (82 mg, 0.497 mmol) in dimethylformamide (12.5 ml). The solution was stood for 5 minutes then added to (2*S*, 3a*R*, 6a*S*)-2-amino-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one **(133)** (prepared as above, 0.497 mmol). The mixture was stirred at ambient temperature for 7 hours then the solvents removed *in vacuo* (water bath temperature < 26 °C) to obtain a volume of approximately 3 ml. Stirring was continued for 1.25 hours then the remaining solvent was removed *in vacuo*. The residue was dissolved in dichloromethane (60 ml) then washed with pH 3 hydrochloric acid (40 ml), saturated aqueous sodium hydrogen carbonate solution (40 ml) and brine (40 ml), then dried (Na_2SO_4) and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 65 : 35 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-dimethylamino benzamide **(135)** as a white solid (180 mg, 68%). TLC (Single spot, R_f = 0.30, EtOAc : heptane 9 : 1), analytical HPLC R_t = 15.789min; HPLC-MS 537.2 $[M + H]^+$; Elemental analysis $C_{30}H_{40}N_4O_5$ .0.4EtOAc req.(fnd.) % C 66.41 (66.60), % H 7.62 (7.92), % N 9.80 (9.51); HRMS $C_{30}H_{40}N_4O_5Na$ req. 559.2896, fnd. 559.2902 (0.95ppm).

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide (EXAMPLE 1).

(3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-Benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl butyl]-4-*tert*-butylbenzamide **(134)** (0.19 g, 0.345 mmol) was dissolved in ice-cooled trifluoroacetic acid / water (95 : 5 v/v, 10 ml) with stirring. The ice-bath was removed and the mixture stirred at ambient temperature for 3.5 hours. The mixture was then reduced *in vacuo* and evaporated from diethyl ether (2x 10 ml) to give a semi-mobile tan gum (0.3 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3a*R*, 6a*S*)-*N*-[(1*S*)-

1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl benzamide (EXAMPLE 1) (0.042 g, 24%) as a white solid. TLC (R_f = 0.45, EtOAc : heptane 9 : 1), analytical HPLC single broad main peak, R_t = 19.43-21.37 min., HPLC-MS 504.1 $[M + H]^+$; Elemental analysis $C_{30}H_{37}N_3O_4$.0.5TFA req.(fnd.) % C 66.45 (66.04), % H 6.75 (7.19), % N 7.50 (7.24); HRMS $C_{30}H_{37}N_3O_4Na$ req. 526.2682, fnd. 526.2677 (-0.96ppm); d_H (500 MHz, $CDCl_3$) Tentative assignment of peaks due to presence of rotamers 0.95 (3H, d, J = 6.5 Hz, Leu δCH_3), 1.01 (3H, d, J = 6.2 Hz, Leu δCH_3), 1.31 (9H, s, C(CH_3)$_3$), 1.58-1.81 (3H, m, Leu βCH_2 and Leu γC*H*), 1.85-2.73 (2H, m, BzNCHCH_2), 3.55-3.69 (1H, m, BzNCHCH$_2$CH_2), 3.85-5.20 (6H, m, BzNC*H*CH$_2$CH_2, BzNCH_2C(=O)C*H* and Leu αC*H*), 6.70-6.89 (1H, m, N*H*), 7.40-7.52 (7H, m, COC$_6$$H_5$ and CHC*H*CC(CH$_3$)$_3$), 7.65-7.76 (2H, m, C*H*CHCC(CH$_3$)$_3$); δ_C (500 MHz, $CDCl_3$) 22.06, 23.28 (2x Leu δCH_3), 24.82 (Leu γCH), 31.11, 31.14 (C(CH_3)$_3$), 31.67, 31.86 (BzNCHCH_2), 34.89, 34.92 (C(CH$_3$)$_3$), 42.43 (Leu βCH_2), 46.10 (BzNCHCH$_2$CH_2), 48.93 (Leu αCH), 60.2 (BzNCH_2), 61.0 (BzNCH or BzNCH$_2$C(=O)CH), 68.2 (BzNCH or BzNCH$_2$C(=O)CH), 125.41, 125.49, 125.54, 126.91, 126.97, 127.11, 127.46, 128.33, 128.79, 130.84 (CH aromatics), 130.70, 131.16, 135.0 (quaternary aromatics), 155.35 (CC(CH$_3$)$_3$), 167.07, 170.67, 172.61 (3 x NC=O).

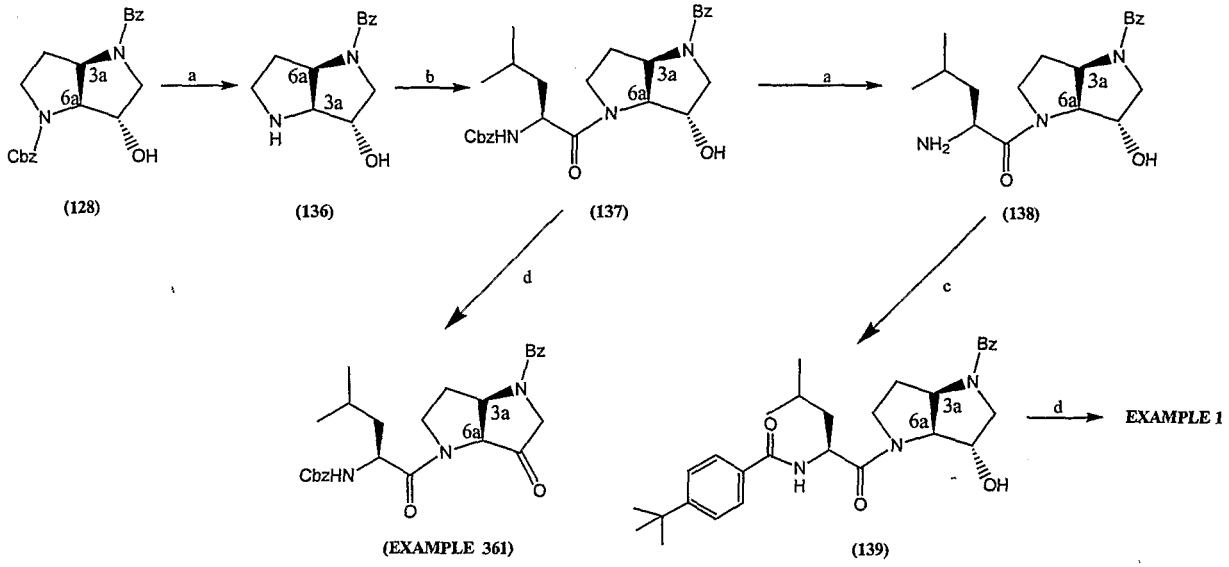
Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-dimethylaminobenzamide

(EXAMPLE 14)

Water (1.75 ml) was added dropwise to a stirred solution of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6,6-dimethoxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-dimethylaminobenzamide **(135)** (175 mg, 0.327 mmol) in trifluoroacetic acid (17.5 ml) at 0 °C over 3 minutes. The solution was then stirred at ambient temperature for 17 hours then the solvents removed *in vacuo* (water bath < 25 °C). The residue was azeotroped with diethyl ether (25 ml) then the residue purified by flash chromatography over silica eluting with ethyl acetate :

heptane mixtures 0 : 100 to 70 : 30 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-dimethylaminobenzamide (EXAMPLE 14) as a white solid (113.6 mg, 71%). TLC (Single spot, R_f = 0.25, EtOAc : heptane 9 : 1), analytical HPLC R_t = 14.241min; HPLC-MS 491.2 $[M + H]^+$; $C_{28}H_{34}N_4O_4$.0.5TFA req.(fnd.) % C 63.64 (63.07), % H 6.35 (6.76), % N 10.23 (9.91); HRMS $C_{28}H_{34}N_4O_4Na$ req. 513.2478, fnd. 513.2492 (2.72ppm); d_H (500 MHz, $CDCl_3$) Tentative assignment of peaks due to presence of rotamers 0.94 (3H, d, J = 6.5 Hz, Leu δC*H*$_3$), 0.99 (3H, d, J = 6.2 Hz, Leu δC*H*$_3$), 1.46-1.83 (3H, m, Leu βC*H*$_2$ and Leu γC*H*), 1.90-2.70 (2H, m, BzNCHC*H*$_2$), 2.99 (6H, s, N(C*H*$_3$)$_2$), 3.45-3.69 (1H, m, BzNCHCH$_2$C*H*$_2$), 3.90-5.25 (6H, m, BzNC*H*CH$_2$C*H*$_2$, BzNC*H*$_2$C(=O)C*H* and Leu αC*H*), 6.58-6.75 (1H, m, N*H*), 6.60-6.68 (2H, m, C*H*CN(CH$_3$)$_2$), 7.35-7.55 (5H, m, COC$_6$*H*$_5$), 7.60-7.73 (2H, m, C*H*CHCN(CH$_3$)$_2$); δ_C (500 MHz, $CDCl_3$) 22.13, 23.25 (2x Leu δ<u>C</u>H$_3$), 24.78 (Leu γ<u>C</u>H), 31.65, 31.85 (BzNCH<u>C</u>H$_2$), 40.04, 40.09, 40.13 (N(<u>C</u>H$_3$)$_2$), 42.35 (Leu β<u>C</u>H$_2$), 46.12 (BzNCHCH$_2$<u>C</u>H$_2$), 48.79 (Leu α<u>C</u>H), 59.99 (BzN<u>C</u>H$_2$), 60.80 (BzN<u>C</u>H or BzNCH$_2$C(=O)<u>C</u>H), 67.7 (BzN<u>C</u>H or BzNCH$_2$C(=O)<u>C</u>H), 110.89, 111.00, 111.04, 111.35 (<u>C</u>HCN(CH$_3$)$_2$), 120.17 (<u>C</u>CHCHCN(CH$_3$)$_2$), 126.92, 127.12, 127.48, 128.31, 128.63, 128.67, 128.77, 129.00, 130.81, 130.96 (<u>C</u>H aromatics), 135.0 (quaternary aromatics), 152.61 (<u>C</u>N(CH$_3$)$_2$), 167.21, 170.69, 173.01 (3 x N<u>C</u>=O).

Alternatively, a useful building block for solution phase synthesis is (3a*R*, 6*S*, 6a*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(128)** described earlier in Scheme 26. The utility of building block **(128)** is detailed in an alternative synthesis of EXAMPLE 1, through Scheme 27, which is an example of the general synthetic strategy detailed in Scheme 17.



Scheme 27. (a) Pd-C / H_2, ethanol / methanol. (b) 1eq Cbz-Leu-F, DMF, RT. (c) 1.05eq 4-*tert*-butylbenzoic acid, HBTU, HOBT, NMM, DMF, RT (d) Dess-Martin periodinane, DCM.

Preparation of (3*S*, 3a*S*, 6a*R*)-(3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenylmethanone (136)

Ethanol (5 ml) was added cautiously dropwise to 10% palladium on charcoal (50 mg) at 0 °C under an atmosphere of argon over 10 minutes whilst stirring followed by a solution of (3a*R*, 6*S*, 6a*S*)-4-benzoyl-6-hydroxy hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid benzyl ester **(128)** (465 mg, 1.27 mmol prepared as above) in ethanol (10 ml). The argon was then replaced by an atmosphere of hydrogen and stirring continued at ambient temperature for 4.5 hours. The hydrogen was then replaced by argon and 10% palladium on charcoal (20 mg) was added at 0 °C. The argon was then replaced with hydrogen and stirring was continued for 4 hours. The hydrogen was replaced by argon then the mixture was filtered through celite. The filter cake was washed with ethanol (75 ml) then the filtrate concentrated *in vacuo* to obtain (3*S*, 3a*S*, 6a*R*)-(3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenylmethanone **(136)** as a colourless oil (309 mg) which was used without further purification. HPLC-MS 233.1 $[M + H]^+$, 465.1 $[2M + H]^+$.

Preparation of (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexa hydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester (137)

Cbz-Leu-F (350 mg, 1.31 mmol) was dissolved in dimethylformamide (5 ml) then added to (3*S*, 3a*S*, 6a*R*)-(3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenyl methanone **(136)** (304 mg, 1.24 mmol, prepared as above) under an atmosphere of argon. The solution was stirred for 1.25 hours then the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 80 : 20 to give (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl] carbamic acid benzyl ester **(137)** as a white solid (402 mg, 68%). TLC (Single spot, R_f = 0.10, EtOAc : heptane 65 : 35), analytical HPLC R_t = 16.803 min; HPLC-MS 480.2 $[M + H]^+$, 981.3 $[2M + Na]^+$; HRMS $C_{27}H_{33}N_3O_5Na$ req. 502.2318, fnd. 502.2311 (-1.44ppm).

Alternative preparation of (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexa hydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester (137)

Dimethylformamide (1 ml) was added to a mixture of (3*S*, 3a*S*, 6a*R*)-(3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)phenylmethanone **(136)** (24 mg, 0.087 mmol, prepared as above) and Cbz-Leu-OSuc (32 mg, 0.088 mmol) under an atmosphere of argon. The solution was stirred for 20 hours then the solvents removed *in vacuo* to obtain a residue which was dissolved in dichloromethane (20 ml) then washed with water (10 ml), dried (Na_2SO_4) and the solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 30 : 70 to 80 : 20 to give (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl butyl]carbamic acid benzyl ester **(137)** as a white solid (25 mg, 60%). TLC (Single spot, R_f = 0.10, EtOAc : heptane 65 : 35), analytical HPLC R_t = 17.301

min; HPLC-MS 480.2 $[M + H]^+$, 981.3 $[2M + Na]^+$; $C_{27}H_{33}N_3O_5.0.2EtOAc$ req.(fnd.) % C 67.20 (67.03), % H 7.02 (7.16), % N 8.45 (8.27); d_H (500 MHz, $CDCl_3$) mixture of rotamers, *tentative assignment of proton* 1.2-2.4 (11H, m, 2x Leu δC*H*$_3$, Leu βC*H*$_2$, Leu γC*H*, BzNCHC*H*$_2$), 3.3-4.0 (4H, m, BzNC*H*$_2$, CbzLeuNC*H*$_2$), 4.2-5.0 (4H, BzNC*H*, CbzLeuNC*H*, C*H*OH, Leu αC*H*), 5.0-5.1 (2H, OC*H*$_2$Ph), 5.4 (1H, d, *J* = 8.3Hz, N*H*), 7.4-7.6 (10H, aromatic); d_C (125 MHz, $CDCl_3$) 21.73, 21.89 and 23.22, 23.36 (2x Leu δ<u>C</u>H$_3$), 24.59, 24.67 (Leu γ<u>C</u>H), 31.86 (BzNCH<u>C</u>H$_2$), 42.02, 42.22 (Leu β<u>C</u>H$_2$), 46.52 (CbzLeuN<u>C</u>H$_2$), 50.94, 51.02 (Leu α<u>C</u>H), 56.58 (BzN<u>C</u>H$_2$), 59.72 (BzN<u>C</u>H), 67.00 (O<u>C</u>H$_2$Ph), 67.98 (CbzLeuN<u>C</u>H), 75.25 (<u>C</u>HOH), 127.34, 128.02, 128.18, 128.28, 128.36, 128.52, 130.34 (aromatic <u>C</u>H), 136.09, 136.18 (aromatic quaternary), 156.18 (NH<u>C</u>=O), 170.08 (Ph<u>C</u>=O), 172.32 (CH$_2$N<u>C</u>=O).

Preparation of (2*S*, 3a*R*, 6a*S*)-2-amino-1-((6S)-4-benzoyl-6-hydroxyhexahydro pyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one (138)

Ethanol (15 ml) was added cautiously to a stirred mixture of (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl] carbamic acid benzyl ester **(137)** (370 mg, 0.77 mmol) and 10% palladium on charcoal (50 mg) at 0 °C under an atmosphere of argon. The argon was replaced by an atmosphere of hydrogen then stirring continued at ambient temperature for 1.75 hours. The hydrogen was replaced by argon then the mixture was cooled to 0 °C before adding a further portion of 10% palladium on charcoal (20 mg). The argon was replaced by hydrogen then stirring continued at ambient temperature for 5.25 hours. The hydrogen was replaced by argon then the mixture was cooled to 0 °C before adding a further portion of 10% palladium on charcoal (20 mg). The argon was replaced by hydrogen then stirring continued at ambient temperature for 14 hours. The hydrogen was replaced by argon then the mixture was cooled to 0 °C before adding a further portion of 10% palladium on charcoal (10 mg). The argon was replaced by hydrogen then stirring continued at ambient temperature for 2 hours. The hydrogen was replaced by argon then the mixture was diluted with ethanol (60 ml) and filtered through celite. The filter cake was

washed with ethanol (40 ml) then the filtrate concentrated *in vacuo*. The residue was azeotroped with ethyl acetate (35 ml) to obtain (2*S*, 3a*R*, 6a*S*)-2-amino-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one **(138)** as an oily white solid (270 mg), which was used without further purification. HPLC-MS 346.2 $[M + H]^+$, 713.3 $[2M + Na]^+$.

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl-benzamide (139)

4-Methylmorpholine (0.17 ml, 1.55 mmol) was added to a solution of HBTU (293 mg, 0.77 mmol), 1-hydroxybenzotriazole monohydrate (118 mg, 0.77 mmol) and 4-(*tert*-butyl)benzoic acid (138 mg, 0.77 mmol) in dimethylformamide (7.5 ml). The solution was stood for 5 minutes then added to (2*S*, 3a*R*, 6a*S*)-2-amino-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrol-1-yl)-4-methylpentan-1-one **(138)** (prepared as above, 0.77 mmol). The mixture was stirred at ambient temperature for 1 hour 5 minutes then the solvents removed *in vacuo* (water bath temperature < 28 °C). The residue was dissolved in dichloromethane (75 ml) then washed with pH 3 hydrochloric acid (60 ml), saturated aqueous sodium hydrogen carbonate solution (60 ml) and brine (60 ml), dried (Na_2SO_4) and the solvents removed *in vacuo*. The residue (512 mg) was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 85 : 15 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl-benzamide **(139)** as a white solid (263 mg, 68%). TLC (Single spot, R_f = 0.15, EtOAc : heptane 9 : 1), analytical HPLC R_t = 19.340 min; HPLC-MS 506.2$[M + H]^+$; $C_{30}H_{39}N_3O_4$.0.5EtOAc req.(fnd.) % C 69.97 (69.86), % H 7.89 (7.87), % N 7.65 (7.88); HRMS $C_{30}H_{39}N_3O_4Na$ req. 528.2838, fnd. 528.2818 (-3.89ppm).

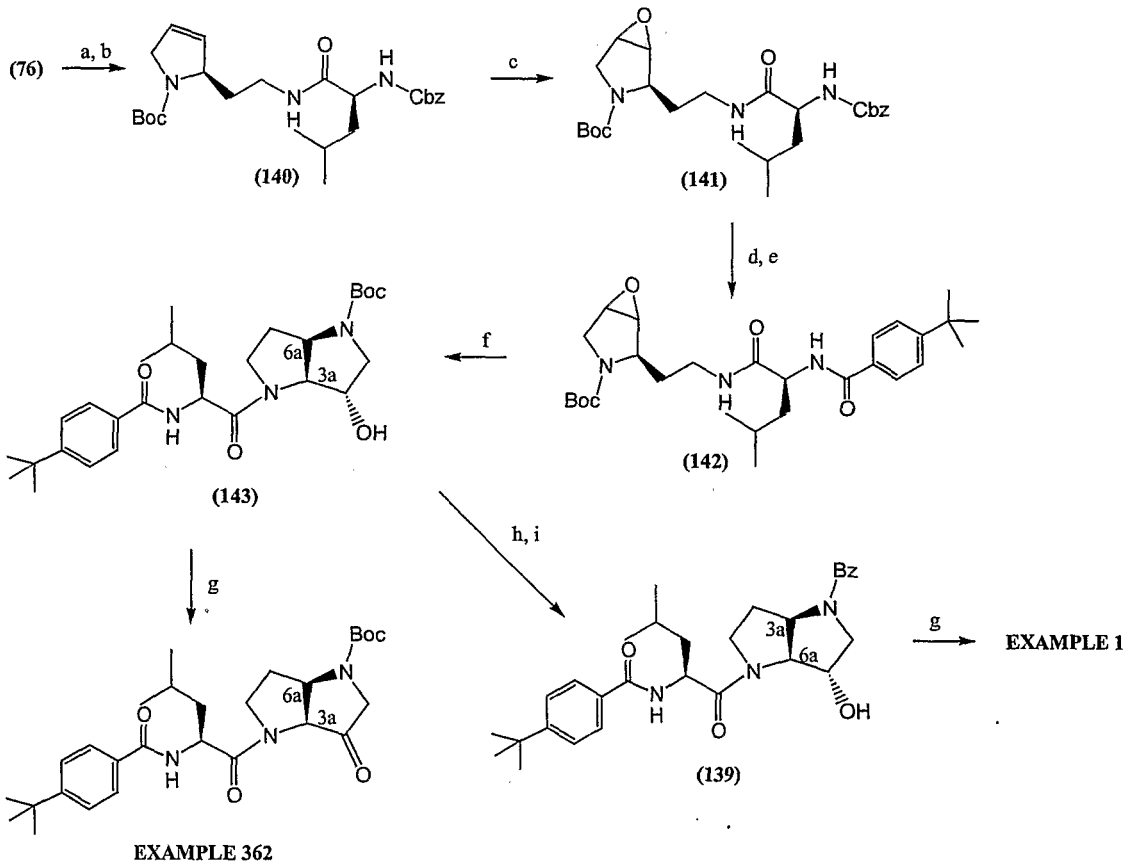
Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide (EXAMPLE 1)

A solution of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butyl-benzamide **(139)** (174 mg, 0.345 mmol) in dichloromethane (10 ml) was added to Dess-Martin periodinane (292 mg, 0.689 mmol) under an atmosphere of argon whilst stirring over 2.5 minutes. The mixture was stirred for 3 minutes then trifluoroacetic acid (53 µl, 0.689 mmol) was added. The mixture was stirred for 14 hours then solvents removed *in vacuo*. The residue was purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 55 : 45 to give (3a*R*, 6a*S*)-*N*-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]-4-*tert*-butylbenzamide (EXAMPLE 1) as a white solid (128 mg, 74%). TLC (Single spot, R_f = 0.20, EtOAc : heptane 9 : 1), analytical HPLC broad peak R_t = 19.2-20.6 min; HPLC-MS single broad UV peak, 504.1 $[M + H]^+$.

Preparation of (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester (EXAMPLE 361)

A solution of (3a*R*, 6a*S*)-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexa hydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester **(137)** (15.0 mg, 0.031 mmol) in dichloromethane (0.75 ml) was added dropwise to Dess-Martin periodinane (26.6 mg, 0.063 mmol) under an atmosphere of argon whilst stirring over 1 minute. The solution was stirred for 4.5 hours then purified by flash chromatography over silica eluting with ethyl acetate : heptane mixtures 0 : 100 to 80 : 20 to give (3a*R*, 6a*S*)-[(1*S*)-1-(4-benzoyl-6-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]carbamic acid benzyl ester (EXAMPLE 361) as a white solid (8.8 mg, 58%). TLC (Single spot, R_f = 0.35, EtOAc : heptane 9 : 1), analytical HPLC broad peak R_t = 17.7-19.5 min; HPLC-MS single broad UV peak, 478.1 $[M + H]^+$, 977.2 $[2M + Na]^+$; HRMS $C_{27}H_{31}N_3O_5Na$ req. 500.2161, fnd. 500.2168 (1.26ppm).

Alternatively, the general synthetic strategy detailed in Scheme 28 involves construction of an extended compound prior to intramolecular ring closure to the 5,5-cis bicycle as the penultimate step. As detailed in Scheme 20, the building block (*R*)-2-(2-azidoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester **(76)** may be reduced to the primary amine, which in Scheme 28 is directly acylated with a protected aminoacid. Following epoxidation, then conversion of the aminoacid protecting group to a suitable capping group, with all of the potency and specificity components now in place, ring-closure and oxidation provides the final inhibitor compound.The utility of such synthetic flexibility is detailed in an alternativesynthesis of EXAMPLE 1, through Scheme 28.



Scheme 28. (a) Ph_3P, H_2O, 1,4-dioxane. (b) 1eq Cbz-Leu-OSu, 2.1eq Na_2CO_3, 1,4-dioxane, water. (c) *m*-Chloroperoxybenzoic acid, DCM. (d) Pd-C, H_2, ethanol. (e) 1.05eq 4-*tert*-butylbenzoic acid, HBTU, HOBT, NMM, DMF, RT. (f) 2eq NaH, THF, RT, 16 h. (g) Dess-Martin periodinane, DCM. (h) 4N HCl in 1,4-dioxane, RT, 30mins. (i) Benzoic anhydride, 4-methylmorpholine, DMF, RT, 1hr.

Preparation of (2*R*)-2-[2-((2*S*)-2-benzyloxycarbonylamino-4-methylpentanoyl amino)ethyl]-2,5-dihydro pyrrole-1-carboxylic acid *tert*-butyl ester (140)

(*R*)-2-(2-Aminoethyl)-2,5-dihydropyrrole-1-carboxylic acid *tert*-butyl ester (see preparation of **(77)** above, ~ 0.63 mmol) was dissolved in 1,4-dioxane (10 ml) with stirring, ice-cooled and a solution of sodium carbonate (0.14 g, 1.32 mmol) in water (10 ml) was added. Cbz-L-Leu-OSu (0.251 g, 0.693 mmol) in 1,4-dioxane (10 ml) was added dropwise over 30 minutes, then the ice bath removed and the mixture stirred for a further 30 minutes. Water (100 ml) was then added and the aqueous phase extracted with dichloromethane (2x 100 ml). The combined organic layers were dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear gum (0.54 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (2*R*)-2-[2-((2*S*)-2-benzyloxycarbonylamino-4-methylpentanoylamino)ethyl]-2,5-dihydro pyrrole-1-carboxylic acid *tert*-butyl ester **(140)** (0.21 g, 72%) as a clear oil. TLC (R_f = 0.30, EtOAc : heptane 1 : 1), analytical HPLC single main peak, R_t = 20.326 min., HPLC-MS 360.1 [M + 2H – Boc]$^+$, 404.1 [M + 2H - Bu]$^+$, 460.2 [M + H]$^+$, 482.1 [M + Na]$^+$, 941.2 [2M + Na]$^+$; Elemental analysis $C_{25}H_{37}N_3O_5$ req.(fnd.) % C 65.34 (65.14), % H 8.11 (8.19), % N 9.14 (9.07); HRMS $C_{25}H_{37}N_3O_5Na$ req. 482.2631, fnd. 482.2620 (-2.33ppm).

Preparation of (2*R*)-2-[2-((2*S*)-2-benzyloxycarbonylamino-4-methylpentanoyl amino)ethyl]-6-oxa-3-azabicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester (141)

(2*R*)-2-[2-((2*S*)-2-Benzyloxycarbonylamino-4-methylpentanoylamino)ethyl]-2,5-di hydropyrrole-1-carboxylic acid *tert*-butyl ester **(140)** (0.20 g, 0.435 mmol) was dissolved in dichloromethane (5 ml) with stirring then *meta*-chloroperoxybenzoic acid (65% reagent, 1.15 g, 4.35 mmol) added. The mixture was stirred at ambient temperature under argon for 16 hours. Dichloromethane (100 ml) was added and the organic phase washed with 10% w/v aqueous sodium hydroxide solution (2x

100 ml), then dried (Na_2SO_4), filtered and reduced *in vacuo* to leave an oily solid (0.19 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (2*R*)-2-[2-((2*S*)-2-benzyloxycarbonylamino-4-methylpentanoyl amino)ethyl]-6-oxa-3-azabicyclo[3.1.0]hexane-3-carboxlic acid *tert*-butyl ester **(141)** (0.19 g, 92%) as an opaque gum. TLC (R_f = 0.35 (major) and 0.42 (minor) (mixture of *anti* and *syn* epoxides), EtOAc : heptane 3 : 1), analytical HPLC single main peak, R_t = 19.21 min., HPLC-MS 376.1 $[M + 2H - Boc]^+$, 420.1 $[M + 2H - Bu]^+$, 476.1 $[M + H]^+$, 498.1 $[M + Na]^+$, 973.2 $[2M + Na]^+$; Elemental analysis $C_{25}H_{37}N_3O_6$ req.(fnd.) % C 63.14 (63.11), % H 7.84 (7.96), % N 8.84 (8.80); HRMS $C_{25}H_{37}N_3O_6Na$ req. 498.2580, fnd. 498.2602 (4.34ppm).

Preparation of (2*R*)-2-{2-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methyl pentanoylamino]ethyl}-6-oxa-3-aza-bicyclo[3.1.0]hexane-3-carboxylic acid *tert*-butyl ester (142)

(i) (2*R*)-2-[2-((2*S*)-2-Benzyloxycarbonylamino-4-methylpentanoylamino)ethyl]-6-oxa-3-azabicyclo [3.1.0]hexane-3-carboxlic acid *tert*-butyl ester **(141)** (0.17 g, 0.357 mmol) was dissolved in ethanol (5 ml), cooled to 0 °C and 10% palladium on charcoal (0.034 g) added. The mixture was stirred, then evacuated and flushed with hydrogen. The mixture was allowed to warm to ambient temperature, stirred for 45 minutes then filtered through celite. The filter cake was washed with ethanol (3x 10 ml) and the combined organic layers reduced *in vacuo* to provide the crude free amine, which was used without further purification. HPLC-MS 342.2 $[M + H]^+$, 683.3 $[2M + H]^+$, 705.3 $[2M + Na]^+$.

(ii) The crude free amine was dissolved in anhydrous dimethylformamide (3 ml) with stirring and 2-(1*H*-benzotriazole-1-yl)-1,1,3,3-tetramethyluroniumhexafluoro phosphate (HBTU, 0.136 g, 0.357 mmol) and 1-hydroxybenzotriazole monohydrate (HOBT, 0.0548 g, 0.357 mmol) added. 4-Methylmorpholine (78.6 µl, 0.715 mmol) was added and the mixture stirred for 1.5 hours, then reduced *in vacuo*. The residue was dissolved in dichloromethane (50 ml) and washed with pH 3 hydrochloric acid (50 ml), saturated sodium hydrogen carbonate solution (50

ml) and brine (50 ml). The organic phase was dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a pale yellow gum (0.19 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (2*R*)-2-{2-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoylamino]ethyl}-6-oxa-3-aza-bicyclo[3.1.0] hexane-3-carboxylic acid *tert*-butyl ester **(142)** (0.08 g, 45%) as a white crystalline solid. TLC (R_f = 0.26, EtOAc : heptane 3 : 1), analytical HPLC single main peak, R_t = 21.195 min., HPLC-MS 446.2 $[M + 2H - Bu]^+$, 502.3 $[M + H]^+$, 524.2 $[M + Na]^+$; Elemental analysis $C_{28}H_{43}N_3O_5$ req.(fnd.) % C 67.04 (67.07), % H 8.64 (8.96), % N 8.38 (7.87); HRMS $C_{28}H_{43}N_3O_5Na$ req. 524.3100, fnd. 524.3086 (-2.81ppm).

Preparation of (3*S*, 3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-3-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester (143)

(2*R*)-2-{2-[(2*S*)-2-(4-*tert*-Butylbenzoylamino)-4-methylpentanoylamino]ethyl}-6-oxa -3-aza-bicyclo [3.1.0]hexane-3-carboxylic acid *tert*-butyl ester **(142)** (0.06 g, 0.12 mmol) was dissolved in tetrahydrofuran (3 ml) with stirring under nitrogen and ice-cooled. Sodium hydride (60% dispersion in oil, 0.010 g, 0.25 mmol) was added over 1 minute and the mixture stirred at ambient temperature for 16 hours. Water (10 ml) was added, then saturated aqueous ammonium chloride solution (5 ml) and the product extracted into ethyl acetate (2x 25 ml). The combined organic layers were dried (Na_2SO_4), filtered and reduced *in vacuo* to leave a clear film (0.06 g). Flash chromatography over silica, eluting with ethyl acetate : heptane mixtures gave (3*S*, 3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-3-hydroxyhexa hydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester **(143)** (0.021 g, 35%) as a white solid. TLC (R_f = 0.40, EtOAc : heptane 2 : 1), HPLC-MS 502.3 $[M + H]^+$, 524.2 $[M + Na]^+$.

A second product fraction contaminated by starting epoxide (~ 25% by UV analysis) was obtained as a white solid (0.0239 g).

Preparation of (3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methyl pentanoyl]-3-oxo-hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester (EXAMPLE 362)

(3*S*, 3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-Butylbenzoylamino)-4-methylpentanoyl]-3-hydroxy hexahydropyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester **(143)** (0.021 g, 0.042 mmol) was dissolved in dichloromethane (2 ml) with stirring under argon. Dess-Martin periodinane (0.0373 g, 0.088 mmol) was added and the mixture stirred for 16 hours. The mixture was reduced *in vacuo* and the residue purified by flash chromatography over silica, eluting with ethyl acetate : heptane mixtures to give (3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-butylbenzoylamino)-4-methylpentanoyl]-3-oxo-hexahydro pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester (EXAMPLE 362) (0.015 g, 71%) as an off-white gum. TLC (R_f = 0.53, EtOAc : heptane 2 : 1), analytical HPLC single broad main peak, R_t = 20.6-22.5 min., HPLC-MS 500.1 $[M + H]^+$. HRMS $C_{28}H_{41}N_3O_5Na$ req. 522.2944, fnd. 522.2952 (1.49ppm); δ_H (500 MHz, $CDCl_3$) 0.85-1.03 (7H, m, 2x Leu δCH_3 + Leu γCH), 1.32 (9H, s, $(CH_3)_3CPh$), 1.47 (9H, s, $(CH_3)_3COCO$), 1.6-1.8 (2H, m, Leu βCH_2), 2.03-2.15 / 2.33-2.45 (2H, b, BocNCHCH_2), 3.50-3.60 (1H, m, LeuNCH_2), 3.75-3.82 (1H, m, BocNCH_2), 3.93-4.02 (1H, m, BocNCH_2), 4.02-4.08 (1H, m, LeuNCH_2), 4.58-4.80 (1H, b, BocNCH or LeuNCH), 4.96-4.98 (1H, b, BocNCH or LeuNCH), 5.0-5.06 / 5.25-5.30 (1H, bm, Leu αCH), 6.83-6.93 (1H, b, LeuNH), 7.42-7.45 (2H, d, J = 8.5 Hz, $(CH_3)_3C$-C-CH=CH), 7.72-7.75 (2H, d, J = 8.5 Hz, $(CH_3)_3C$-C-CH=CH); δ_C (125 MHz, $CDCl_3$) 22.27, 23.48 (2x Leu $\delta\underline{C}H_3$), 24.78 (Leu $\gamma\underline{C}H$), 28.32 ($(\underline{C}H_3)_3COCO$), 29.64, 31.82 (BocNCH$\underline{C}H_2$), 31.09 ($(\underline{C}H_3)_3CPh$), 34.88 ($(CH_3)_3\underline{C}Ph$), 42.50 (Leu $\beta\underline{C}H_2$), 45.95 (LeuN$\underline{C}H_2$), 49.09, 49.67 (Leu $\alpha\underline{C}H$), 52.37 (BocN$\underline{C}H_2$), 56.82 (BocN$\underline{C}H$), 62.92 (LeuN$\underline{C}H$), 81.16 ($(CH_3)_3\underline{C}OCO$), 125.34, 125.44 ($(CH_3)_3C$-C-$\underline{C}H$=CH), 126.89, 126.95 ($(CH_3)_3C$-C-CH=$\underline{C}H$), 130.83 (quaternary aromatics), 155.26 ($(CH_3)_3CO\underline{C}O$), 167.01 $(CH_3)_3CPh\underline{C}O$), 172.28 ((Leu $\underline{C}$=O).

Preparation of (3a*R*, 6a*S*)-*N*-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydro pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbuty]-4-*tert*-butylbenzamide (139)

(i) (3*S*, 3a*S*, 6a*R*)-4-[(2*S*)-2-(4-*tert*-Butylbenzoylamino)-4-methylpentanoyl]-3-hydroxyhexahydro pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid *tert*-butyl ester **(143)** (0.023 g, 0.046 mmol) was dissolved in 4.0M HCl in 1,4-dioxane (2 ml, 8 mmol) with stirring. After 45 minutes the solvents were removed *in vacuo* and the residue triturated then evaporated from diethyl ether (3x 3 ml) to leave (3a*R*, 6a*S*)-4-*tert*-butyl-*N*-[(1*S*)-1-((6*S*)-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbutyl]benzamide hydrochloride as a white solid which was used without further purification; HPLC-MS 402.2 $[M + H]^+$, 424.2 $[M + Na]^+$, 803.4 $[2M + H]^+$, 825.4 $[2M + Na]^+$.

(ii) (3a*R*, 6a*S*)-4-*tert*-Butyl-*N*-[(1*S*)-1-((6*S*)-6-hydroxyhexahydropyrrolo[3,2-*b*] pyrrole-1-carbonyl)-3-methylbutyl]benzamide hydrochloride (prepared as above, ~0.048 mmol) was dissolved in dimethylformamide (2 ml) with stirring, then benzoic anhydride (0.0114g, 0.05 mmol) added followed by 4-methylmorpholine (11.1µl, 0.0102 g, 0.101 mmol). After 1 hour, ethyl acetate (25 ml) was added and the organics washed with saturated aqueous sodium hydrogen carbonate solution (25 ml) solution, pH 3 hydrochloric acid (25 ml), and brine (25 ml). The organics were dried (Na_2SO_4), filtered and reduced *in vacuo* to a colourless film (3a*R*, 6a*S*)-*N*-[(1*S*)-1-((6*S*)-4-benzoyl-6-hydroxyhexahydropyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methylbuty]-4-*tert*-butylbenzamide **(139)** (0.028 g). TLC (R_f = 0.16, EtOAc : heptane 4 : 1), analytical HPLC single broad main peak, R_t = 19.15 min., HPLC-MS 506.2 $[M + H]^+$, 528.2 $[M + Na]^+$.

Oxidation to EXAMPLE 1 is as detailed in Scheme 27.

EXAMPLE A. Assays for Cysteine Protease Activity

The compounds of this invention may be tested in one of a number of literature based biochemical assays that are designed to elucidate the characteristics of

compound inhibition. The data from these types of assays enables compound potency and the rates of reaction to be measured and quantified. This information, either alone or in combination with other information, would allow the amount of compound required to produce a given pharmacological effect to be determined.

General materials and methods

Unless otherwise stated, all general chemicals and biochemicals were purchased from either the Sigma Chemical Company, Poole, Dorset, U.K. or from Fisher Scientific UK, Loughborough, Leicestershire, U.K. Absorbance assays were carried out in flat-bottomed 96-well plates (Spectra; Greiner Bio-One Ltd., Stonehouse, Gloucestershire, U.K.) using a SpectraMax PLUS384 plate reader (Molecular Devices, Crawley, U.K.). Fluorescence high throughput assays were carried out in either 384-well microtitre plates (Corning Costar 3705 plates, Fisher Scientific) or 96-well 'U' bottomed Microfluor W1 microtitre plates (Thermo Labsystems, Ashford, Middlesex, U.K.). Fluorescence assays were monitored using a SpectraMax Gemini fluorescence plate reader (Molecular Devices). For substrates employing either a 7-amino-4-methylcoumarin (AMC) or a 7-amino-4-trifluoromethylcoumarin (AFC) fluorophore, assays were monitored at an excitation wavelength of 365 nm and an emission wavelength of 450 nm and the fluorescence plate reader calibrated with AMC. For substrates employing a 3-amino-benzoyl (Abz) fluorophore, assays were monitored at an excitation wavelength of 310 nm and an emission wavelength of 445 nm; the fluorescence plate reader calibrated with 3-amino-benzamide (Fluka). Unless otherwise indicated, all the peptidase substrates were purchased from Bachem UK, St. Helens, Merseyside, UK. Substrates utilizing fluorescence resonance energy transfer methodology (*i.e.* FRET-based substrates) were synthesized at Incenta Limited using published methods (Atherton & Sheppard, *Solid Phase Peptide Synthesis*, IRL Press, Oxford, U.K., **1989**) and employed Abz (2-aminobenzoyl) as the fluorescence donor and 3-nitro-tyrosine [Tyr(NO_2)] as the fluorescence quencher (Meldal, M. and Breddam, K., *Anal. Biochem.*, 195, 141-147, **1991**). Hydroxyethylpiperazine ethanesulfonate (HEPES), tris-hydroxylmethyl

aminomethane (tris) base, bis-tris-propane and all the biological detergents (*e.g.* CHAPS, zwittergents, *etc.*) were purchased from CN Biosciences UK, Beeston, Nottinghamshire, U.K. Glycerol was purchased from Amersham Pharmacia Biotech, Little Chalfont, Buckinghamshire, U.K. Stock solutions of substrate or inhibitor were made up to 10 mM in 100 % dimethylsulfoxide (DMSO) (Rathburns, Glasgow, U.K.) and diluted as appropriately required. In all cases the DMSO concentration in the assays was maintained at less than 1% (vol./vol.).

Assay protocols were based on literature precedent (Table 4; Barrett, A.J., Rawlings, N.D. and Woessner, J.F., **1998**, *Handbook of Proteolytic Enzymes*, Academic Press, London and references therein) and modified as required to suit local assay protocols. Enzyme was added as required to initiate the reaction and the activity, as judged by the change in fluorescence upon conversion of substrate to product, was monitored over time. All assays were carried out at 25±1°C.

Table 4. *The enzyme assays described herein were carried out according to literature precedents.*

Enzyme	Buffer	**Substrate**	**Reference**
Cathepsin B	I	Z-Phe-Arg-AMC	a, b
Cathepsin H	II	Bz-Phe-Val-Arg-AMC	a, b
Cathepsin L	I	Ac-Phe-Arg-AMC	b, c
Cathepsin S	I	Boc-Val-Leu-Lys-AMC	c,d
Caspase 1	III	Ac-Leu-Glu-His-Asp-AMC	e
Caspase 2	III	Z-Val-Asp-Val-Ala-Asp-AFC	f
Caspase 3	III	Ac-Asp-Glu-Val-Asp-AMC	g, h
Caspase 4	III	Suc-Tyr-Val-Ala-Asp-AMC	f
Caspase 5	III	Ac-Leu-Glu-His-Asp-AMC	
Caspase 6	III	Ac-Val-Glu-Ile-Asp-AMC	i, j, k
Caspase 7	III	Ac-Asp-Glu-Val- Asp-AMC	
Caspase 8	III	Ac-Ile-Glu-Thr-Asp-AMC	l
Caspase 9	III	Ac-Leu-Glu-His-Asp-AMC	

Caspase 10	III	Ac-Ile-Glu-Thr-Asp-AMC	
Cruzipain	IV	D-Val-Leu-Lys-AMC	m, n
CPB2.8ΔCTE	XI	Pro-Phe-Arg-AMC	q
S. Aureus Extracellular cysteine peptidase	I	Abz-Ile-Ala-Ala-Pro-Tyr(NO_2)-Glu-NH_2	o
Clostripain		Z-Gly-Gly-Arg-AMC	p
FMDV LP	V	Abz-Arg-Lys-Leu-Lys-Gly-Ala-Gly-Ser-Tyr(NO_2)-Glu-NH_2	r
Trypsin	VI	Z-Gly-Gly-Arg-AMC	s
Calpain μ	VII	Abz-Ala-Asn-Leu-Gly-Arg-Pro-Ala-Leu-Tyr(NO_2)-Asp-NH_2	t
Calpain m	VIII	Abz-Lys-Leu-Cys(Bzl)-Phe-Ser-Lys-Gln-Tyr(NO_2)-Asp-NH_2	t
Cathepsin K	IX	Z-Phe-Arg-AMC	u
Cathepsin X	X		v,w

I: 10 mM BTP, pH 6.5 containing 1 mM EDTA, 5 mM 2-mercaptoethanol and 1 mM $CaCl_2$

II: 10 mM BTP, pH 6.5 containing 1 mM EDTA, 142 mM NaCl, 1 mM DTT, 1 mM $CaCl_2$, 0.035 mM Zwittergent 3-16

III: 50mM HEPES pH 7.2, 10% Glycerol, 0.1% CHAPS, 142 mM NaCl, 1 mM EDTA, 5 mM DTT

IV: 100 mM sodium phosphate, pH 6.75 containing 1 mM EDTA and 10 mM L-cysteine

V: 50 mM tris·acetate, pH 8.4 containing 1 mM EDTA, 10 mM L-cysteine and 0.25% (w/v) CHAPS

VI: 10 mM HEPES, pH 8.0 containing 5 mM $CaCl_2$

VII: 10 mM HEPES, pH 7.5 containing 2 mM 2-mercaptoethanol and 100 μM $CaCl_2$

VIII: 10 mM HEPES, pH 7.5 containing 2 mM 2-mercaptoethanol and 200 μM $CaCl_2$

IX: 100 mM sodium acetate; pH 5.5 containing 10 mM L-cysteine and 1 mM EDTA

X: 100 mM sodium acetate; pH 5.5 containing 10 mM L-cysteine; 0.05% (w/v) Brij 35 and 1 mM EDTA

XI: 100 mM sodium acetate; pH 5.5 containing 10 mM L-cysteine; 142 mM sodium chloride and 1 mM EDTA

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Trypanosoma cruzi cruzipain peptidase activity assays

Wild-type cruzipain, derived from *Trypanosoma cruzi* Dm28 epimastigotes, was obtained from Dr. Julio Scharfstein (Instituto de Biofisica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil). Activity assays were carried out in 100 mM sodium phosphate, pH 6.75 containing 1 mM EDTA and 10 mM L-cysteine using 2.5 nM enzyme. Ac-Phe-Arg-AMC (K_M^{app} ~ 12 μM) and D-Val-Leu-Lys-AMC (K_M^{app} ~ 4 μM) were used as the substrates. Routinely, Ac-FR-AMC was used at a concentration equivalent to K_M^{app} and D-Val-Leu-Lys-AMC was used at a concentration of 25 μM. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Leishmania mexicana cysteine protease B (CPB) peptidase activity assays

Wild-type recombinant CPB without the C-terminal extention (*i.e.* CPB2.8ΔCTE; Sanderson, S.J., *et. al.*, *Biochem. J.*, 347, 383-388, **2000**) was obtained from Dr. Jeremy Mottram (Wellcome Centre for Molecular Parasitology, The Anderson College, University of Glasgow, Glasgow, U.K.). Activity assays were carried out in 100 mM sodium acetate; pH 5.5 containing 1 mM EDTA; 200 mM NaCl and 10 mM DTT (Alves, L.C., *et. al., Mol. Biochem. Parasitol*, 116, 1-9, **2001**) using 0.25 nM enzyme. Pro-Phe-Arg-AMC (K_M^{app} ~ 38μM) was used as the substrate at a concentration equivalent to K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Cathepsin peptidase activity assays

Bovine cathepsin S, human cathepsin L, human cathepsin H and human cathepsin B were obtained from CN Biosciences. Recombinant human cathepsin S, human cathepsin K and human cathepsin X were obtained from Dr. Boris Turk (Josef Stefan Institute, Ljubljana, Slovenia). Unless otherwise stated, all peptidase activity assays were carried out in 10 mM bis-tris-propane (BTP), pH 6.5 containing 1 mM EDTA, 5 mM 2-mercaptoethanol and 1 mM $CaCl_2$. Human cathepsin H activity assays were carried out in 10 mM BTP pH 6.5, 142 mM $NaCl_2$, 1 mM $CaCl_2$, 1 mM EDTA, 1 mM DTT, 0.035 mM Zwittergent 3-16. Human cathepsin K assays were carried out in 100 mM sodium acetate; pH 5.5 containing 20 mM L-cysteine and 1 mM EDTA (Bossard, M.J., *et. al.*, *J. Biol. Chem.*, 21, 12517-12524, **1996**). Human cathepsin X assays were carried out in 100 mM sodium acetate; pH 5.5 containing 20 mM L-cysteine; 0.05% (w/v) Brij 35 and 1 mM EDTA (Santamaria, I., *et. al.*, *J. Biol. Chem.*, 273, 16816-16823, **1998**; Klemencic, J, *et al.*, *Eur. J. Biochem.*, 267, 5404-5412, **2000**). The final enzyme concentrations used in the assays were 0.5 nM bovine cathepsin S, 1 nM cathepsin L, 0.1 nM cathepsin B, 0.25nM Cathepsin K; 1 nM cathepsin X and 10 nM cathepsin H. For the inhibition assays, the substrates used for cathepsin S, cathepsin L, cathepsin B, cathepsin K and cathepsin H were boc-Val-Leu-Lys-AMC (K_M^{app} ~ 30 μM), Ac-Phe-Arg-AMC (K_M^{app} ~ 20 μM), Z-Phe-Arg-AMC (K_M^{app} ~ 40 μM), Z-Leu-Arg-AMC (K_M^{app} ~ 2μM); Bz-Phe-Val-Arg-AMC (K_M^{app} ~ 150 μM) respectively. In each case the substrate concentration used in each assay was equivalent to the K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Trypsin peptidase activity assays

Human pancreatic trypsin (iodination grade; CN Biosciences) activity assays were carried out in 10 mM HEPES, pH 8.0 containing 5 mM $CaCl_2$ using 0.1 nM trypsin. For the inhibition assays, Z-Gly-Gly-Arg-AMC (K_M^{app} ~ 84 μM) was

used as the substrate at a concentration equivalent to K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Clostripain peptidase activity assays

Clostripain (Sigma) activity assays were carried out in 10 mM BTP, pH 6.5 containing 1 mM EDTA, 5 mM 2-mercaptoethanol and 1mM $CaCl_2$ using 0.3 nM enzyme. For the inhibition assays, Z-Gly-Gly-Arg-AMC (K_M^{app} ~ 100 μM) was used as the substrate at a concentration equivalent to K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Calpain peptidase activity assays

Calpain (human erythrocyte μ-calpain and porcine kidney m-calpain; CN Biosciences) activity assays were carried out in 10 mM HEPES, pH 7.5 containing 2 mM 2-mercaptoethanol and $CaCl_2$ using 25 nM of either enzyme (Sasaki, *et. al.*, *J. Biol. Chem.*, **259**, 12489-12494, **1984**). For μ-calpain inhibition assays, the buffer contained 100 μM $CaCl_2$ and Abz-Ala-Asn-Leu-Gly-Arg-Pro-Ala-Leu-Tyr(NO_2)-Asp-NH_2 (K_M^{app} ~ 20 μM; Incenta Limited) was used as the substrate. For m-calpain inhibition assays, the assay buffer contained 200 μM $CaCl_2$ and Abz-Lys-Leu-Cys(Bzl)-Phe-Ser-Lys-Gln-Tyr(NO_2)-Asp-NH_2 (K_M^{app} ~ 22 μM; Incenta Limited) was used as the substrate. In both cases the substrate concentration employed in the assays was equivalent to the K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Extracellular *S. aureus* V8 cysteine peptidase (staphylopain) peptidase activity assays

S. aureus V8 was obtained from Prof. S. Arvidson, Karolinska Institute, Stockholm, Sweden. Extracellular *S. aureus* V8 cysteine peptidase (staphylopain)

activity assays were carried out using partially purified *S. aureus* V8 culture supernatant (obtained from Dr. Peter Lambert, Aston University, Birmingham, U.K.). Activity assays were carried out in 10 mM BTP, pH 6.5 containing 1 mM EDTA, 5 mM 2-mercaptoethanol and 1mM $CaCl_2$ using two-times diluted partially purified extract. For the inhibition assays, Abz-Ile-Ala-Ala-Pro-Tyr(NO_2)-Glu-NH_2 (K_M^{app} ~ 117 μM; Incenta Limited) was used as the substrate at a concentration equivalent to K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Foot-and-mouth disease leader peptidase (FMDV-LP) activity assays

Recombinant wild-type FMDV-LP was obtained from Dr. Tim Skern (Institut für Medizinische Biochemie, Abteilung für Biochemie, Universtät Wien, Wien, Austria). Activity assays were carried out in 50 mM tris·acetate, pH 8.4 containing 1 mM EDTA, 10 mM L-cysteine and 0.25% (w/v) CHAPS using 10 nM enzyme. For the inhibition assays, Abz-Arg-Lys-Leu-Lys-Gly-Ala-Gly-Ser-Tyr(NO_2)-Glu-NH_2 (K_M^{app} ~ 51 μM, Incenta Limited) was used as the substrate at a concentration equivalent to K_M^{app}. The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Caspase peptidase activity assays

Caspases 1-10 were obtained from CN Biosciences or BioVision Inc. (Mountain View, CA, USA) and all assays were carried out in 50mM HEPES; pH 7.2, 10% (v/v) glycerol, 0.1% (w/v) CHAPS, 142 mM NaCl, 1 mM EDTA, 5 mM dithiothreitol (DTT) using 0.1-1 U per assay. For caspase 1, Ac-Leu-Glu-His-Asp-AMC was used as the substrate; for caspase 2, Z-Val-Asp-Val-Ala-Asp-AFC was used as the substrate; for caspase 3, Ac-Asp-Glu-Val-Asp-AMC was used as the substrate; for caspase 4, Suc-Tyr-Val-Ala-Asp-AMC was used as the substrate; for caspase 5, Ac-Leu-Glu-His-Asp-AMC was used as the substrate; for caspase 6, Ac-Val-Glu-Ile-Asp-AMC was used as the substrate; for caspase 7, Ac-

Asp-Glu-Val-Asp-AMC was used as the substrate; for caspase 8, Ac-Ile-Glu-Thr-Asp-AMC was used as the substrate; for caspase 9, Ac-Leu-Glu-His-Asp-AMC was used as the substrate; for caspase 10, Ac-Ile-Glu-Thr-Asp-AMC was used as the substrate (Nicholson, D.W. and Thornberry, N.A., *TIBS*, 22, 299-306, **1997**; Stennicke, H.R. and Salvesen, G.S., *J. Biol. Chem.*, 272(41), 25719-25723, **1997**; Talanian, R.V., *et. al.*, *J. Biol. Chem.*, 272(15), 9677-9682, **1997**; Wolf, B.B. and Green, D.R., *J. Biol. Chem.*, 274(29), 20049-20052, **1999**). The rate of conversion of substrate to product was derived from the slope of the increase in fluorescence monitored continuously over time.

Measurement of the apparent macroscopic binding (Michaelis) constants (K_M^{app}) for substrates

The apparent macroscopic binding constant (K_M^{app}) for each substrate was calculated, from the dependence of enzyme activity as a function of substrate concentration. The observed rates were plotted on the ordinate against the related substrate concentration on the abscissa and the data fitted by direct regression analysis (Prism v 3.02; GraphPad, San Diego, USA) using Equation 1 (Cornish-Bowden, A. *Fundamentals of enzyme kinetics* Portland Press; **1995**, 93-128.).

$$v_i = \frac{V_{max}^{app}.[S_o]}{[S_o] + K_M^{app}} \qquad \textbf{(1)}$$

In Equation 1 'v_i' is the observed initial rate, 'V_{max}^{app}' is the observed maximum activity at saturating substrate concentration, 'K_M^{app}' is the apparent macroscopic binding (Michaelis) constant for the substrate, '$[S_o]$' is the initial substrate concentration.

Measurement of the inhibition constants

The apparent inhibition constant (K_i) for each compound was determined on the basis that inhibition was reversible and occurred by a pure-competitive

mechanism. The K_i values were calculated, from the dependence of enzyme activity as a function of inhibitor concentration, by direct regression analysis (Prism v 3.02) using Equation 2 (Cornish-Bowden, A., 1995.).

$$v_i = \frac{V_{max}^{app}.[S]}{[S] + \{K_M^{app}.([I]/K_i)\}} \qquad (2)$$

In Equation 2 'v_i' is the observed residual activity, 'V_{max}^{app}' is the observed maximum activity (*i.e.* in the absence of inhibitor), 'K_M^{app}' is the apparent macroscopic binding (Michaelis) constant for the substrate, '**[S]**' is the initial substrate concentration, 'K_i' is the apparent dissociation constant and '**[I]**' is the inhibitor concentration.

In situations where the apparent dissociation constant (K_i^{app}) approached the enzyme concentrations, the K_i^{app} values were calculated using a quadratic solution in the form described by Equation 3 (Morrison, J.F. *Trends Biochem. Sci.*, 7, 102-105, **1982**; Morrison, J.F. *Biochim. Biophys. Acta*, 185, 269-286, **1969**; Stone, S.R. and Hofsteenge, J. *Biochemistry*, 25, 4622-4628, **1986**).

$$v_i = \frac{F\{E_o - I_o - K_i^{app} + \sqrt{(E_o - I_o - K_i^{app})^2 + 4.K_i^{app}.E_o}\}}{2} \qquad (3)$$

$$K_i^{app} = K_i(1 + [S_o]/K_M^{app}) \qquad (4)$$

In Equation 3 'v_i' is the observed residual activity, '**F**' is the difference between the maximum activity (*i.e.* in the absence of inhibitor) and minimum enzyme activity, 'E_o' is the total enzyme concentration, 'K_i^{app}' is the apparent dissociation constant and 'I_o' is the inhibitor concentration. Curves were fitted by non-linear regression analysis (Prism) using a fixed value for the enzyme concentration. Equation 4 was used to account for the substrate kinetics, where 'K_i' is the inhibition constant, '$[S_o]$' is the initial substrate concentration and 'K_M^{app}' is the

apparent macroscopic binding (Michaelis) constant for the substrate (Morrison, **1982**).

The second-order rate of reaction of inhibitor with enzyme

Where applicable, the concentration dependence of the observed rate of reaction (k_{obs}) of each compound with enzyme was analysed by determining the rate of enzyme inactivation under pseudo-first order conditions in the presence of substrate (Morrison, J.F., *TIBS*, 102-105, **1982**; Tian, W.X. and Tsou, C.L., *Biochemistry*, **21**, 1028-1032, **1982**; Morrison, J.F. and Walsh, C.T., from Meister (Ed.), *Advances in Enzymol.*, 61, 201-301, **1988**; Tsou, C.L., from Meister (Ed.), *Advances in Enzymol.*, 61, 381-436, **1988**;). Assays were carried out by addition of various concentrations of inhibitor to assay buffer containing substrate. Assays were initiated by the addition of enzyme to the reaction mixture and the change in fluorescence monitored over time. During the course of the assay less than 10% of the substrate was consumed.

$$F = v_s t + \frac{(v_o - v_s)\left[1 - e^{(k_{obs} \cdot t)}\right]}{k_{obs}} + D \qquad \textbf{(5)}$$

The activity fluorescence progress curves were fitted by non-linear regression analysis (Prism) using Eq. 5 (Morrison, 1969; Morrison, 1982); where '**F**' is the fluorescence response, '**t**' is time, '$\mathbf{v_o}$' is the initial velocity, '$\mathbf{v_s}$' is the equilibrium steady-state velocity, '$\boldsymbol{k}_{\mathbf{obs}}$' is the observed pseudo first-order rate constant and '**D**' is the intercept at time zero (*i.e.* the ordinate displacement of the curve). The second order rate constant was obtained from the slope of the line of a plot of k_{obs} versus the inhibitor concentration (*i.e.* $k_{obs}/[I]$). To correct for substrate kinetics, Eq. 6 was used, where '$[\mathbf{S_o}]$' is the iniitial substrate concentration and '$\boldsymbol{K}_{\mathbf{M}}^{\mathbf{app}}$' is the apparent macroscopic binding (Michaelis) constant for the substrate.

$$k_{inact} = \frac{k_{obs}\left(1 + [S_o]/K_M{}^{app}\right)}{[I]} \qquad \textbf{(6)}$$

Compounds of the invention were tested by the above described assays and observed to exhibit cathepsin K inhibitory activity or inhibitory activity against an alternative CA C1 cysteine protease with an *in vitro* Ki inhibitory constant of less than or equal to 100μM. Exemplary inhibition data for examples of the invention are given in Table 5.

Table 5. Exemplary inhibition data (Ki expressed as μM).

Example Nº	Human Cathepsin K	Cruzipain	Bovine Cathepsin S	Human Cathepsin L	CPB
2	<0.01	>0.3	>1	>3	>0.2
296	>50	>1	>5	<0.2	>5
250	>5	>5	<0.1	>1	>5
346	>8	<0.2	>10	>3	>5

Human Osteoclast Resorption Assay

Bone resorption was studied using a model where human osteoclast precursor cells were cultured on bovine bone slices for 9 days and allowed to differentiate into bone-resorbing osteoclasts. The formed mature osteoclasts were then allowed to resorb bone. The assay was performed by Pharmatest Services Ltd, Itäinen Pitkakatu 4C, Turku, Finland. After the culture period, bone collagen degradation products were quantified from the culture medium as an index of bone resorption.

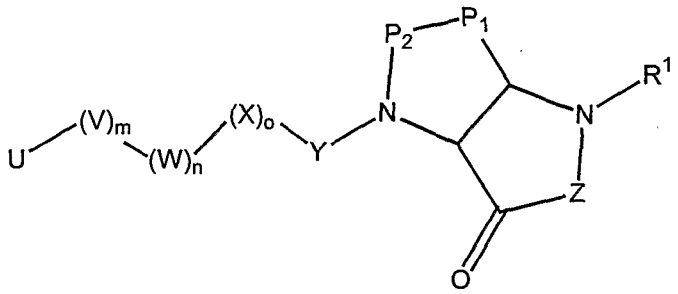
Inhibitor compounds were added into the cell cultures after the differentiation period and their effects on the resorbing activity of mature osteoclasts were determined. The studies included a baseline group without added compounds and a positive control group where a potent cathepsin K inhibitor E-64 was added.

Human peripheral blood monocytes were suspended to culture medium and allowed to attach to bovine bone slices. The bone slices were transferred into 96-well tissue culture plates containing culture medium with appropriate amounts of important growth factors favouring osteoclast differentiation, including M-CSF, RANK-ligand and TGF-β. The cells were incubated in a CO_2 incubator in humidified atmosphere of 95% air and 5% carbon dioxide at 37°C. At day 7 when osteoclast differentiation was complete, the culture medium was replaced with culture medium containing conditions favouring osteoclast activity. The cell culture was continued for an additional 2 days, during which the formed mature osteoclasts were allowed to resorb bone in the presence of vehicle, control inhibitor (E64) or test compounds. At the end of the culture, bone collagen degradation products released into the culture medium were determined using a commercially available ELISA method (CrossLaps® for culture, Nordic Bioscience, Herlev, Denmark) as an index of bone resorption (see Bagger, Y. Z. et al, J. Bone. Miner. Res. 14 (suppl. 1), S370).

In this assay, selected EXAMPLES of the invention exhibited more than 70% inhibition of bone resorption at a concentration of 100nM.

CLAIMS

1. A compound of general formula (I)



(I)

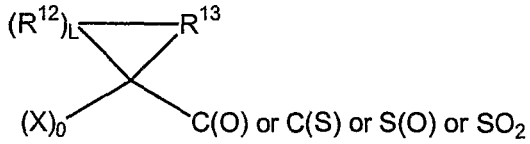
wherein:

Z = CR^3R^4, where R^3 and R^4 are independently chosen from C_{0-7}-alkyl (when C = 0, R^3 or R^4 is simply a hydrogen atom), C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl (when C = 0, R^3 or R^4 is simply an aromatic moiety Ar),

P_1 = CR^5R^6, where R^5 and R^6 are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl, O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N(C_{0-7}-alkyl)$_2$, N(C_{3-6}-cycloalkyl)$_2$ or N(Ar-C_{0-7}-alkyl)$_2$;

P_2 = O, CR^7R^8 or NR^9, where R^7 and R^8 are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and R^9 is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl;

Y = $CR^{10}R^{11}$-C(O) or $CR^{10}R^{11}$-C(S) or $CR^{10}R^{11}$-S(O) or $CR^{10}R^{11}$-SO_2 where R^{10} and R^{11} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl, or Y represents



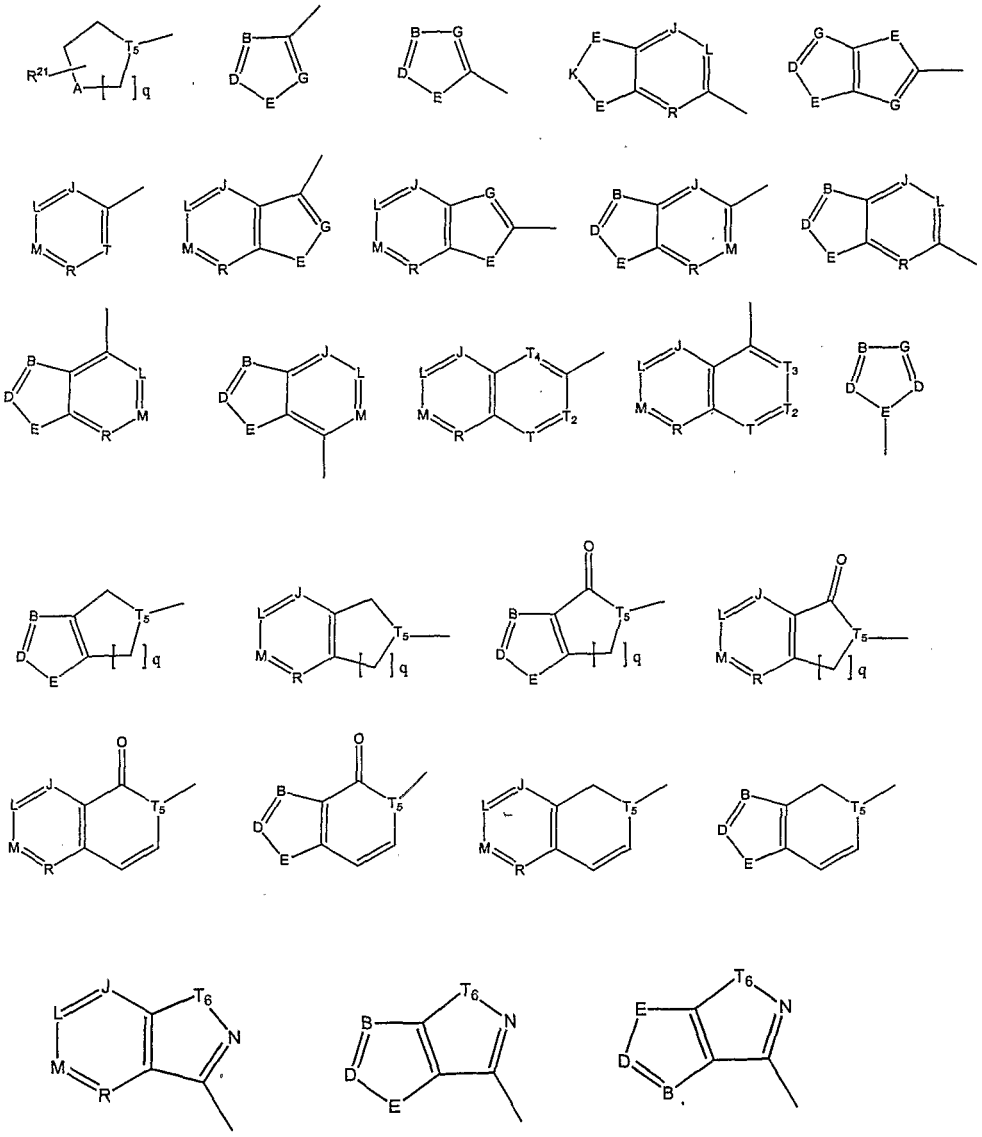
where L is a number from one to four and R^{12} and R^{13} are independently chosen from $CR^{14}R^{15}$ where R^{14} and R^{15} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl or halogen; and for each R^{12} and R^{13} either R^{14}or R^{15} (but not both R^{14} and R^{15}) may additionally be chosen from O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N-(C_{0-7}-alkyl)$_2$, N-(C_{3-6}-cycloalkyl)$_2$, and N-(Ar-C_{0-7}-alkyl)$_2$;

$(X)_o$ = $CR^{16}R^{17}$, where R^{16} and R^{17} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl and o is a number from zero to three;

$(W)_n$ = O, S, C(O), S(O) or $S(O)_2$ or NR^{18}, where R^{18} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl and n is zero or one;

$(V)_m$ = C(O), C(S), S(O), $S(O)_2$, $S(O)_2NH$, OC(O), NHC(O), NHS(O), $NHS(O)_2$, OC(O)NH, C(O)NH or $CR^{19}R^{20}$, C=N-C(O)-OR^{19} or C=N-C(O)-NHR^{19}, where R^{19} and R^{20} are independently chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and m is a number from zero to three, provided that when m is greater than one, $(V)_m$ contains a maximum of one carbonyl or sulphonyl group;

U = a stable 5- to 7-membered monocyclic or a stable 8- to 11-membered bicyclic ring which is either saturated or unsaturated and which includes zero to four heteroatoms (as detailed below):



wherein R^{21} is:

C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl, O-C_{0-7}-alkyl, O-C_{3-6}-cycloalkyl, O-Ar-C_{0-7}-alkyl, S-C_{0-7}-alkyl, S-C_{3-6}-cycloalkyl, S-Ar-C_{0-7}-alkyl, SO_2-C_{0-7}-alkyl, SO_2-C_{3-6}-cycloalkyl, SO_2-Ar-C_{0-7}-alkyl, NH-C_{0-7}-alkyl, NH-C_{3-6}-cycloalkyl, NH-Ar-C_{0-7}-alkyl, N(C_{0-7}-alkyl)$_2$, N(C_{3-6}-

cycloalkyl)$_2$ or N(Ar-C_{0-7}-alkyl)$_2$; or, when part of a CHR^{21} or CR^{21} group, R^{21} may be halogen;

A is chosen from:

CH_2, CHR^{21}, O, S, SO_2, NR^{22} or N-oxide (N→O), where R^{21} is as defined above; and R^{22} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl and Ar-C_{0-7}-alkyl;

B, D and G are independently chosen from:

CR^{21}, where R^{21} is as defined above, or N or N-oxide (N→O);

E is chosen from:

CH_2, CHR^{21}, O, S, SO_2, NR^{22} or N-oxide (N→O), where R^{21} and R^{22} are defined as above;

K is chosen from:

CH_2, CHR^{22}, where R^{22} is defined as above;

J, L, M, R, T, T_2, T_3 and T_4 are independently chosen from:

CR^{21} where R^{21} is as defined above, or N or N-oxide (N→O);

T_5 is chosen from:

CH or N;

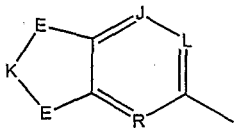
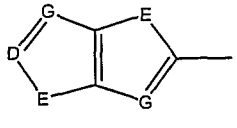
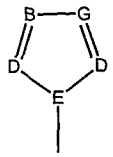
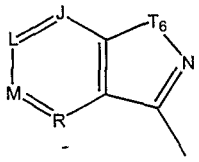
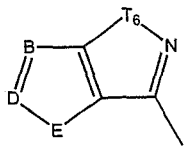
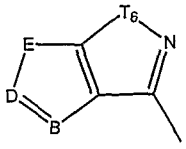
T_6 is chosen from:

NR^{22}, SO_2, OC(O), C(O), $NR^{22}C(O)$;

q is a number from one to three, thereby defining a 5-, 6- or 7-membered ring;

$R^1 = R^2C(O)$, $R^2OC(O)$, $R^2NQC(O)$, R^2SO_2, where R^2 is chosen from C_{1-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl (when C = 0, R^2 is simply an aromatic moiety Ar) and Q is C_{0-7}-alkyl;

provided that when Y is other than $CR^{10}R^{11}$-C(O) or when U is:

R^1 may also be C_{0-7}-alkyl, C_{3-6}-cycloalkyl or Ar-C_{0-7}-alkyl;

or a salt, hydrate, solvate, complexe or prodrug thereof.

2. A compound as claimed in claim 1 wherein independently or in any combination:

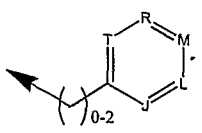
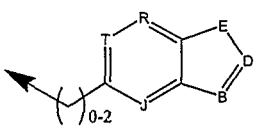
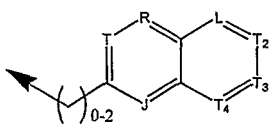
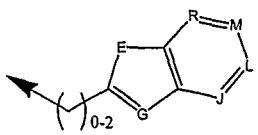
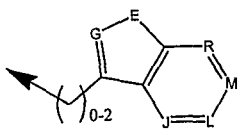
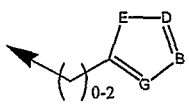
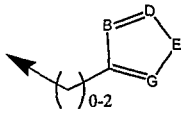
Z is CH_2;

P^1 is CH_2;

P^2 is CH_2, O or NH.

3. A compound as claimed in claim 1 or claim 2 wherein R^2 is Ar-C_{0-2}-alkyl.

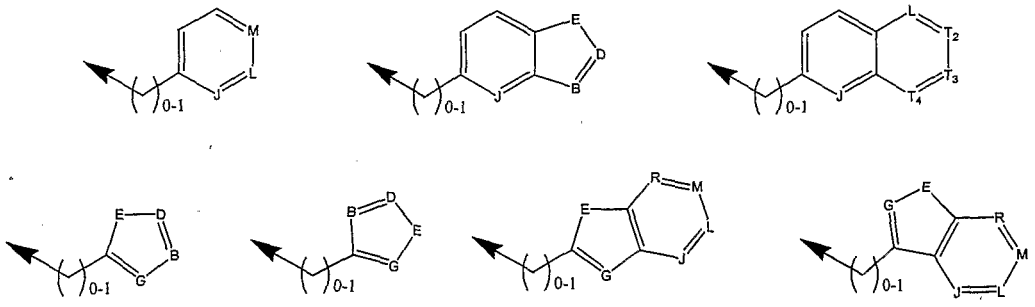
4. A compound as claimed in claim 3, wherein R^2 is:

where J, L, M, R, T, T_2, T_3 and T_4, B, D, G and E are as previously defined.

5. A compound as claimed in any one of claims 1 to 3, wherein R^2 is Ar-C_{0-1}-alkyl.

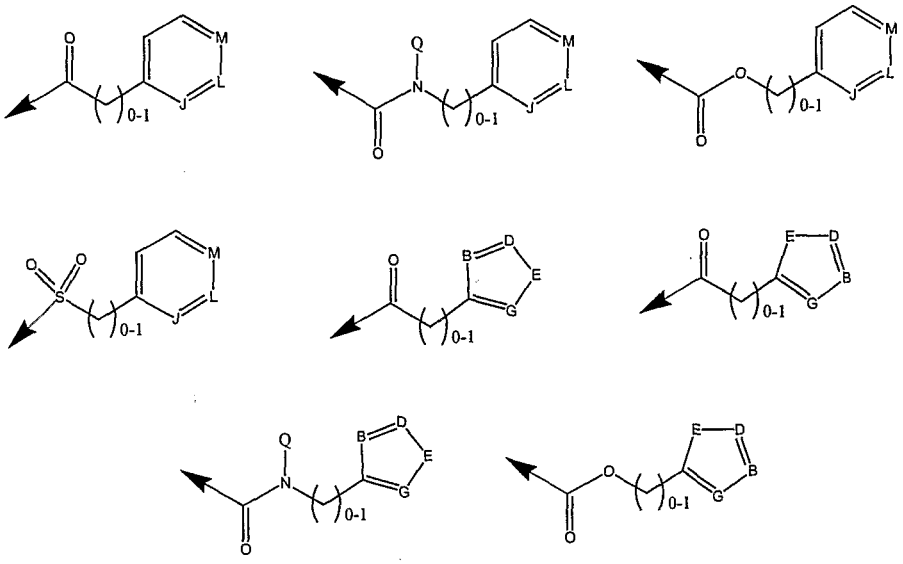
6. A compound as claimed in claim 5, wherein R^2 is:



where J, L, M, T_2, T_3, T_4, B, D, G and E are as previously defined.

7. A compound as claimed in any one of claims 1 to 3 or 5 wherein R^2 comprises a monocyclic Ar-C_{0-1}-alkyl.

8. A compound as claimed in claim 7, wherein R^2 forms part of an R^1 group selected from:



wherein:

J, L, M, B, D and G are as defined above (i.e. CR^{21}, N or N→O) and wherein R^{21} is chosen from hydrogen, methyl, methoxy, ethyl, isopropyl, trifluoromethyl, trifluoromethoxy, F, Cl, SO_2Me; and

B, D, G are as defined above (i.e. CR^{21}, N or N→O) and where R^{21} is chosen from hydrogen, methyl, methoxy, ethyl, isopropyl, trifluoromethyl, trifluoromethoxy, F, Cl, SO_2Me; and

E is as previously defined; and

Q is chosen from hydrogen or methyl.

9. A compound as claimed in claim 1 or claim 2 wherein R^2 is C_{3-7}-alkyl which may include an -O- or -NH- as part of the chain and which is either unsubstituted or is substituted with one or more NH_2, NHMe, $NHC(O)CH_3$, $NMeC(O)CH_3$, OH or OMe groups.

10. A compound as claimed in claim 9 wherein When R^2 is a C_{3-6}-alkyl group which is branched at the α-position or which includes an NH_2, NHMe, $NHC(O)CH_3$, $NMeC(O)CH_3$, OH or OMe substituent at the α-position.

10. A compound as claimed in claim 1 or claim 2 wherein R^2 is cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidine, piperidine, morpholine, tetrahydrofuran, cyclopentene, cyclopentadiene, cyclohexadiene and piperazine, wherein nitrogen-containing rings may be N-substituted with groups such as C_{1-4} alkyl, phenyl or benzyl.

11. A compound as claimed in claim 1 or claim 2, wherein R^2 is a C_{3-6}-cycloalkyl group, wherein the ring system is either connected directly to the remainder of the R^1 moiety or there is one intervening methylene group.

12. A compound as claimed in claim 1 or claim 2 wherein R^1 is:
benzoyl; pyridine-2-carbonyl; 1-oxy-pyridine-2-carbonyl; pyridine-3-carbonyl; 1-oxy-pyridine-3-carbonyl; pyridine-4-carbonyl; 1-oxy-pyridine-4-carbonyl; phenyl sulphonyl; pyridine-2-sulphonyl; 1-oxy-pyridine-2-sulphonyl; pyridine-3-sulphonyl; 1-oxy-pyridine-3-sulphonyl; pyridine-4-sulphonyl; 1-oxy-pyridine-4-sulphonyl; phenylacetyl; phenylcarbamoyl; isobutylcarbamoyl; phenyloxycarbonyl; isobutyloxycarbonyl; pyrrolidine-N-carbonyl; piperidine-N-carbonyl; morpholine-N-carbonyl; piperazine-N-carbonyl; 4-methyl-piperazine-N-carbonyl; (4-methyl-piperazin-1-yl)-acetoyl; piperazin-1-yl-acetoyl; furan-2-carbonyl; 5-chlorofuran-2-carbonyl; thiophene-2-carbonyl; 5-chlorothiophene-2-carbonyl; furan-3-carbonyl; thiophene-3-carbonyl; cyclopentoyl; cyclohexoyl; cyclopent-3-enoyl; cyclopentylmethylcarbonyl; cyclohexylmethylcarbonyl; pyrrolidine-2-carbonyl; N-acetyl-pyrrolidine-2-carbonyl; piperidine-2-carbonyl; N-acetyl-piperidine-2-carbonyl; tetrahydrofuran-2-carbonyl; 1-aminocyclobutanoyl; 1-aminocyclopentanoyl; 1-aminocyclohexanoyl; N-acetyl-1-aminocyclobutanoyl; N-acetyl-1-aminocyclopentanoyl; N-acetyl-1-aminocyclohexanoyl; 1-hydroxycyclobutanoyl; 1-hydroxycyclopentanoyl; 1-hydroxycyclohexanoyl; 1-methoxycyclobutanoyl; 1-methoxycyclopentanoyl; 1-methoxycyclohexanoyl; aminocyclopentylacetoyl; aminocyclohexylacetoyl; N-acetylaminocyclopentylacetoyl; N-acetylaminocyclohexylacetoyl; 2-acetylaminopropionoyl; 2-acetylaminoethanoyl; 2-acetyl-N-methylaminoethanoyl; N,N-dimethylaminoacetoyl; 2-aminobutanoyl; N-acetyl-2-

aminobutanoyl; 2-amino-3-methylbutanoyl; N-acetyl-2-amino-3-methylbutanoyl; 2-amino-3,3-dimethylbutanoyl; N-acetyl-2-amino-3,3-dimethylbutanoyl; 2-amino-3-methylpentanoyl; N-acetyl-2-amino-3-methylpentanoyl; pentanoyl; 3-methylpentanoyl; 4-methylpentanoyl; 2-amino-4-methylpentanoyl; N-acetyl-2-amino-4-methylpentanoyl; 2-amino-4,4-dimethylpentanoyl; N-acetyl-2-amino-4,4-dimethylpentanoyl; 2-aminopentanoyl; N-acetyl-2-aminopentanoyl; 2-amino-5-methylhexanoyl; N-acetyl-2-amino-5-methylhexanoyl; 2-hydroxy-3-methylbutanoyl; 2-methoxy-3-methylbutanoyl; 2-hydroxy-3,3-dimethylbutanoyl; 2-methoxy-3,3-dimethylbutanoyl; 2-hydroxy-3-methylpentanoyl; 2-methoxy-3-methylpentanoyl; 2-hydroxy-4-methylpentanoyl; 2-methoxy-4-methylpentanoyl; 2-hydroxy-4,4-dimethylpentanoyl; 2-methoxy-4,4-dimethylpentanoyl; 2-hydroxypentanoyl; 2-methoxypentanoyl; 2-hydroxy-5-methylhexanoyl; 2-methoxy-5-methylhexanoyl;

13. A compound as claimed in any one of claims 1 to 12, wherein, in the group $(X)_o$, each of R^{16} and R^{17} is selected from C_{0-7}-alkyl or Ar-C_{0-7}-alkyl, for example hydrogen, a straight or branched alkyl chain, a straight or branched heteroalkyl chain, an optionally substituted arylalkyl chain or an optionally substituted arylheteroalkyl chain.

14. A compound as claimed in claim 13, wherein, in the group $(X)_o$, R^{16} is hydrogen and R^{17} is hydrogen; C_{1-4}-alkyl, which may be substituted with OH, $NR^{22}R^{22}$, $COOR^{22}$, or $CONR^{22}$; or Ar-C_{1-4}-alkyl, where the aryl group may be substituted with R^{21}, wherein each R^{21} and R^{22} is independently as defined in claim 1.

15. A compound as claimed in claim 14 wherein, in the group $(X)_o$, R^{16} is hydrogen and R^{17} is chosen from hydrogen or a simple C_{1-4}-alkyl group.

16. A compound as claimed in claim 15 wherein, in the group $(X)_o$, R^{16} and R^{17} are hydrogen and o is zero or one.

18. A compound as claimed in any one of claims 1 to 17 wherein, in the group $(W)_n$, W is chosen from O, S, SO_2, S(O), C(O) or NR^{18}, where R^{18} is chosen from C_{0-7}-alkyl; and n is zero or one.

19. A compound as claimed in claim 18, wherein, in the group $(W)_n$, W comprises O, S, SO_2, C(O) or NH and n is zero or one.

20. A compound as claimed in claim 19 wherein, in the group $(W)_n$, W is C(O) or NH where n is zero or one.

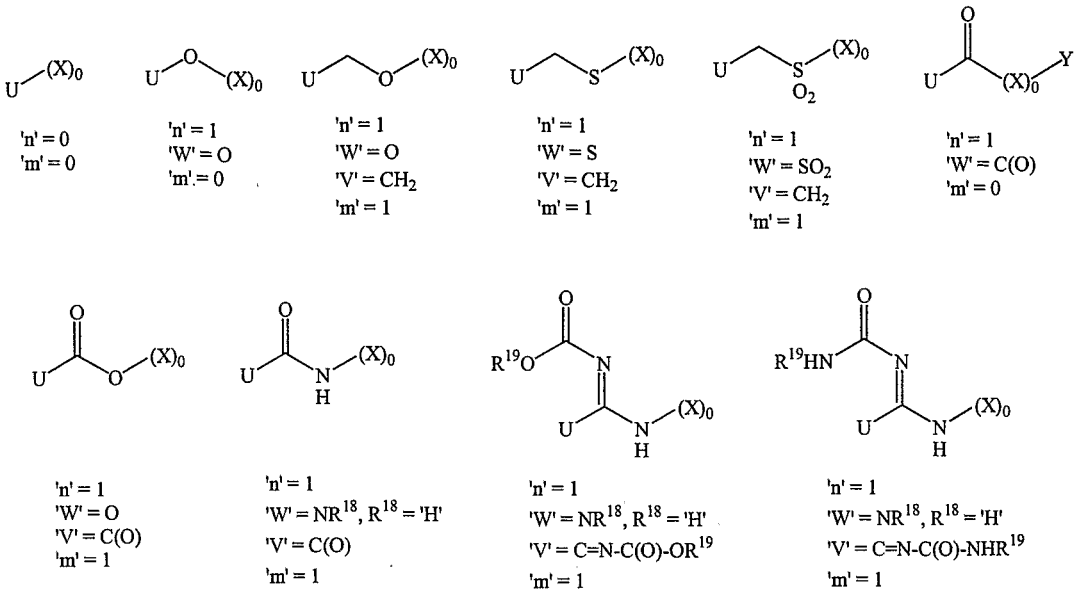
21. A compound as claimed in claim 20 wherein in the group $(W)_n$, W is NH and n is zero or one.

22. A compound as claimed in any one of claims1 to 21 wherein, in the group $(V)_m$, V is chosen from C(O), OC(O), NHC(O), C(O)NH, CHR^{20}, C=N-C(O)-OR^{19} or C=N-C(O)-NHR^{19}

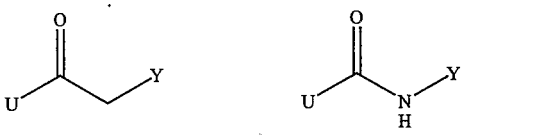
where R^{19} is chosen from C_{0-7}-alkyl, C_{3-6}-cycloalkyl, Ar-C_{0-7}-alkyl and R^{20} is C_{0-4}-alkyl, and

m is zero or one.

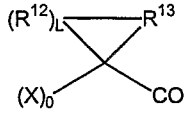
23. A compound as claimed in any one of claims 1 to 22, wherein the V and W substituent combination comprises:



24. A compound as claimed in any one of claims 1 to 23 wherein the V, W and X substituent combination comprises:

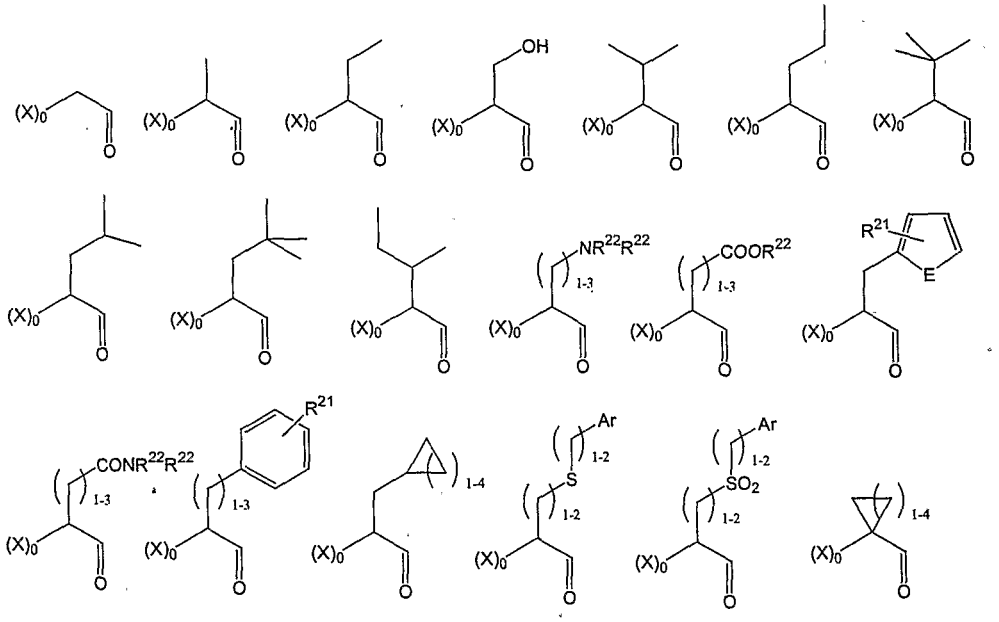


25. A compound as claimed in any one of claims 1 to 24 which is an inhibitor of cathepsin K and wherein Y is $CHR^{11}CO$ where R^{11} is selected from C_{0-7}-alkyl, Ar-C_{0-7}-alkyl or C_{3-6}-cycloalkyl; orY comprises a group:



where R^{12} and R^{13} are each $CR^{14}R^{15}$ and each R^{14} and R^{15} is, independently, selected from C_{0-7}-alkyl or Ar-C_{0-7}-alkyl, for example hydrogen, a straight or branched alkyl chain, a straight or branched heteroalkyl chain, an optionally substituted arylalkyl chain or an optionally substituted arylheteroalkyl chain and L is a number from one to four.

26. A compound as claimed in claim 25 wherein Y is:



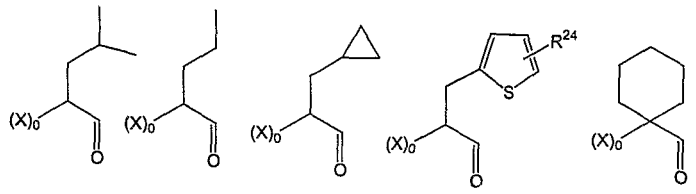
wherein E, R^{21}, R^{22} and Ar are as defined previously; any of which may be substituted with one or more halogen, preferably fluoro, substituents.

27. A compound as claimed in claim 25, wherein in the group Y, R^{11} is C_{1-4}-alkyl, which may be substituted with cycloalkylmethyl or halogen, or R^{11} is chosen from cycloalkyl-1-carbonyl or R^{11} is chosen from Ar-C_{1-4}-alkyl, where the aryl group may be substituted with R^{21}; where R^{21} is defined in claim 1.

28. A compound as claimed in claim 27, wherein, in the group Y, R^{11} is a simple straight or branched alkyl group, optionally substituted with one or more halogen substitutents.

29. A compound as claimed in claim 28, wherein in the group Y, R^{11} is $ArCH_2$-, where the aromatic ring is an optionally substituted monocyclic heterocycle.

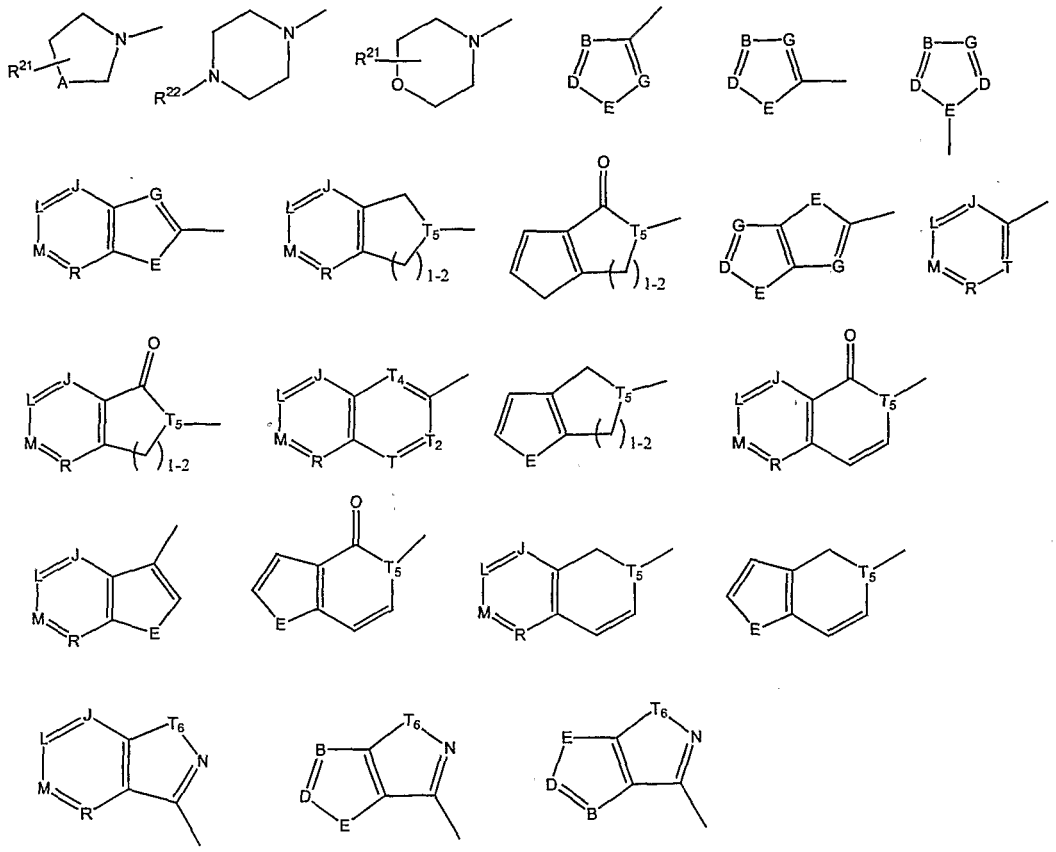
30. A compound as claimed in any one of claims 25 to 29 wherein the Y group comprises:



wherein R^{24} is chosen from hydrogen, methyl, methoxy, ethyl, isopropyl, F, Cl and wherein any of the alkyl groups may be substituted with one or more F or Cl.

31. A compound as claimed in any one of claims 1 to 30, which is an inhibitor of cathepsin K and wherein the group U comprises an optionally substituted 5- or 6-membered saturated or unsaturated heterocycle or Ar group or an optionally substituted saturated or unsaturated 8 to 10-membered heterocycle or Ar group.

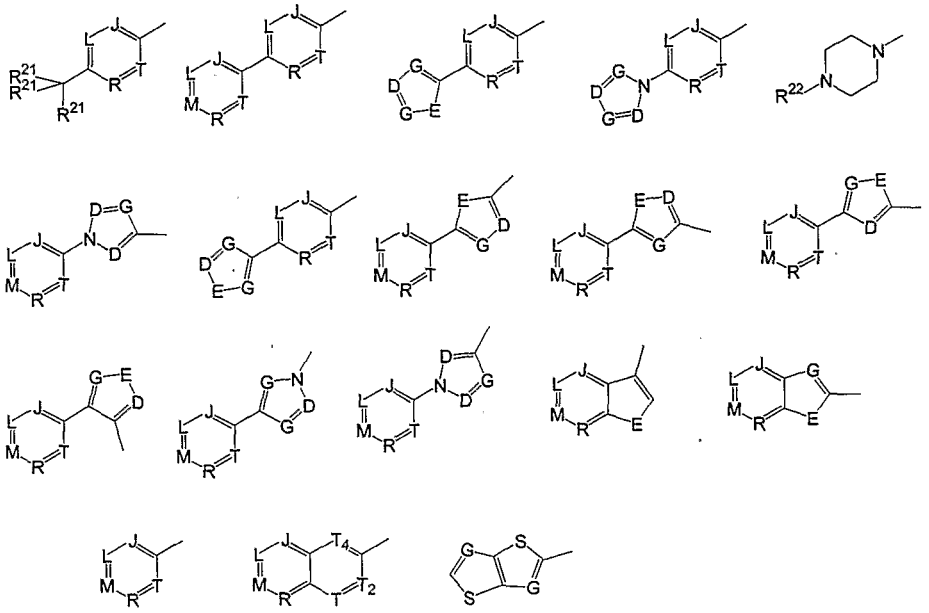
32. A compound as claimed in claim 31, wherein the group U comprises:



wherein R^{21}, R^{22}, A, B, D, E, G, J, L, M, R, T, T_2, T_4, T_5 and T_6 are as defined in claim 1.

33. A compound as claimed in claim 32, wherein U a bulky alkyl or aryl group at the para position of an aryl; a meta or para 5,6-biaryl Ar-Ar, where Ar is as previously defined; a 6,6 or 6,5 or 5,5-fused aromatic ring, where Ar is as previously defined, or a 4-substituted piperazine.

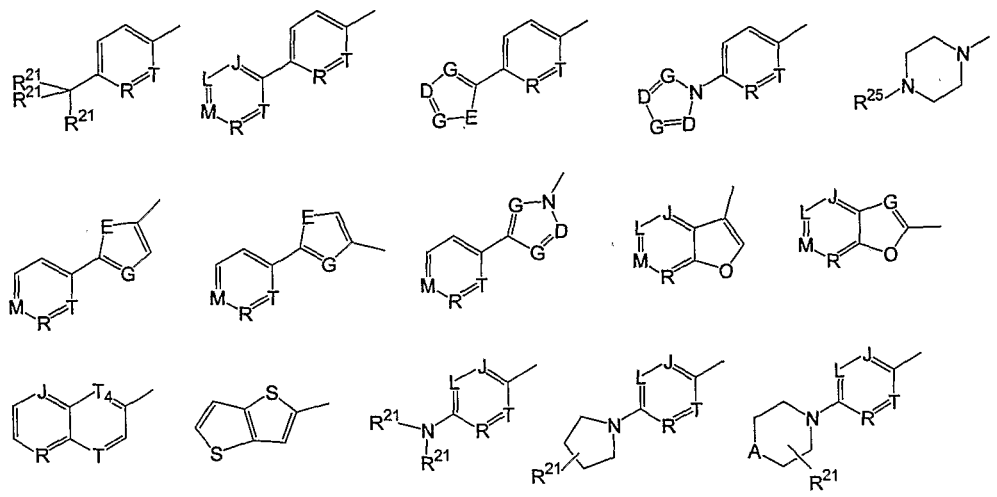
34. A compound as claimed in claim 33, wherein U comprises:



wherein R^{21}, R^{22}, D, E, G, J, L, M, R, T, T_2 and T_4 are as defined previously.

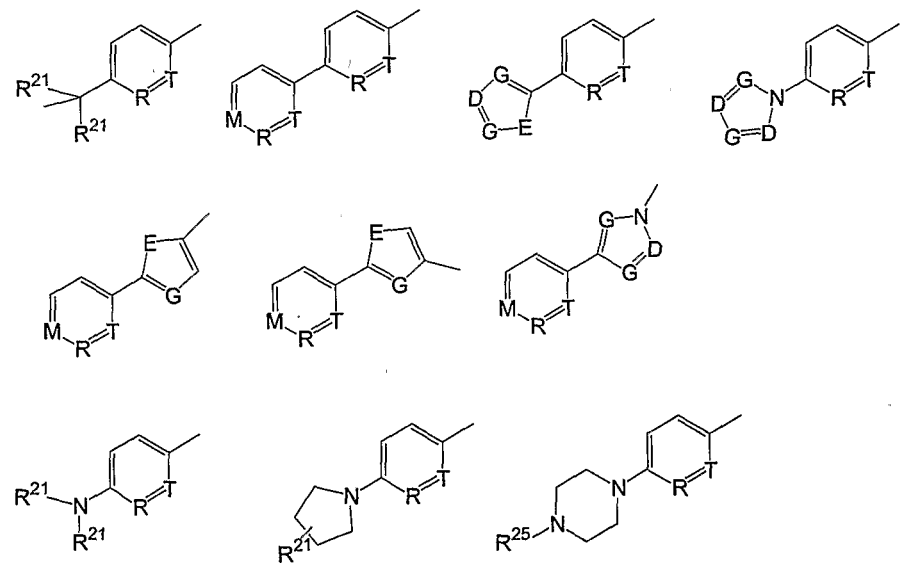
35. A compound as claimed in claim 34, wherein U comprises a 6-membered aromatic ring Ar containing a bulky alkyl or aryl group at the para position; a meta or para-biaryl Ar-Ar; a 6,6 or 6,5 or 5,5-fused aromatic ring; or a 4-substituted piperazine where R^{25} is chosen from hydrogen, C_{1-2}-alkyl or Ar-C_{0-2}-alkyl.

36. A compound as claimed in claim 35, wherein U comprises:



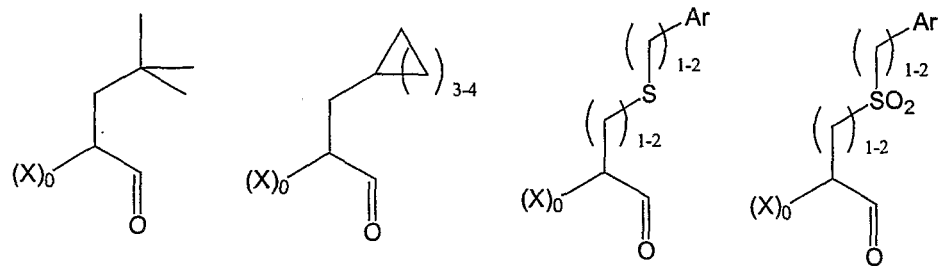
wherein R^{21}, R^{25}, D, E, G, J, L, M, R, T and T_4 are as defined in claim 1.

37. A compound as claimed in claim 36, wherein U comprises:



wherein R^{21}, R^{25}, D, E, G, M, R and T are as defined in claim 1.

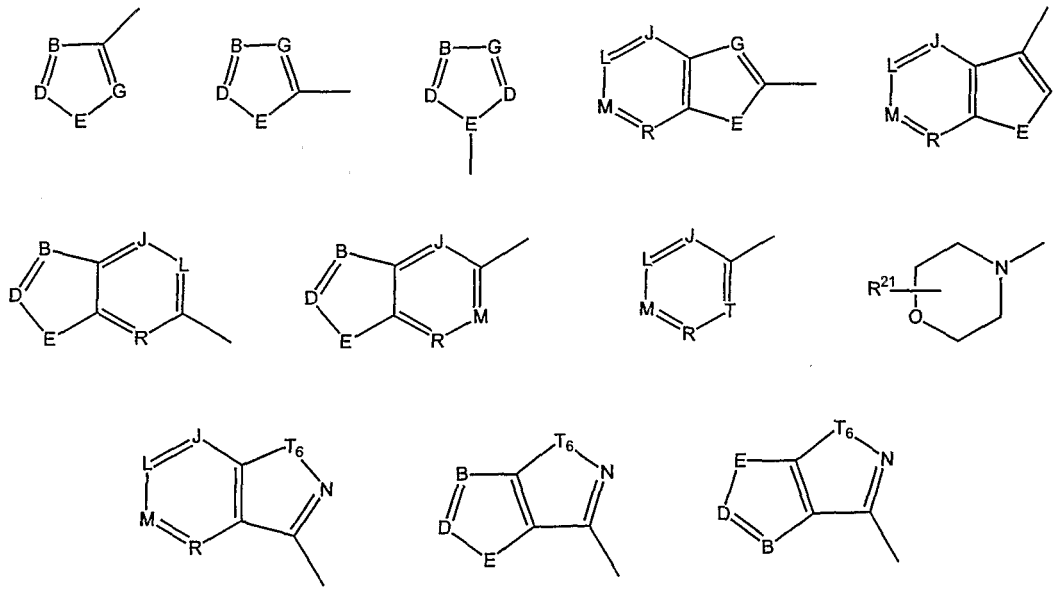
38. A compound as claimed in any one of claims 1 to 24 which is an inhibitor of cathepsin S and wherein Y comprises:



wherein $(X)_o$ is as defined in claim 1.

39. A compound as claimed in claim 38, wherein U comprises an optionally substituted 5-membered unsaturated heterocycle or a 6,5- 5,5- or 5,6-fused aromatic ring, where Ar is as previously defined or a morpholine.

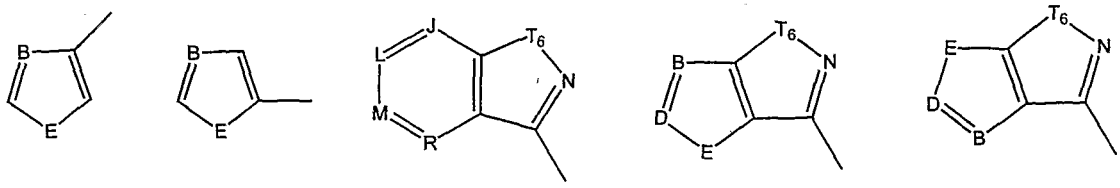
40. A compound as claimed in claim 39, wherein U comprises:



wherein R^{21}, B, D, E, G, J, L, M, R and T_6 are as defined in claim 1.

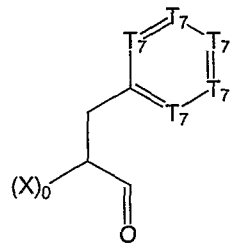
41. A compound as claimed in claim 40, wherein U comprises an optionally substituted 5-membered unsaturated heterocycle or a 6,5- or 5,5-fused aromatic ring.

42. A compound as claimed in claim 41, wherein U comprises:



wherein B, D, E, J, L, M, R and T_6 are as defined in claim 1.

43. A compound as claimed in any one of claims 1 to 24 which is an inhibitor of cathepsin L and wherein Y comprises:

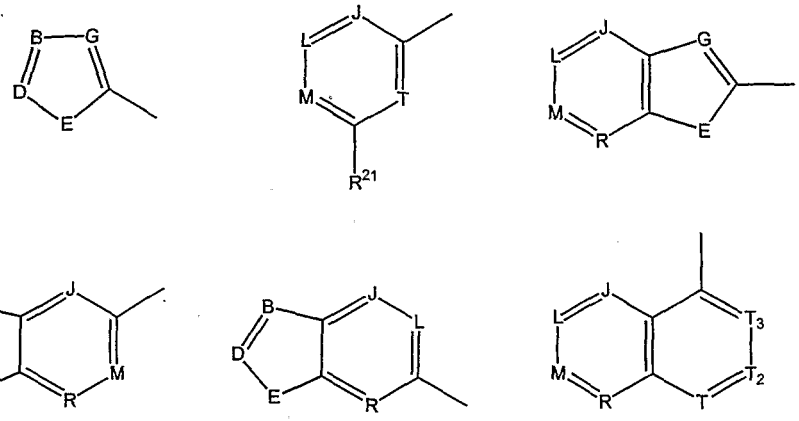


wherein T_7 is chosen from CH, N or CR^{21} where R^{21} is as defined in claim 1.

44. A compound as claimed in claim 43, wherein, within the T_7 substituent, the R^{21} substituent is chosen from single and multiple ring substitution combinations of Me, F, Cl, OH and OMe.

45. A compound as claimed in claim 43 or claim 44, wherein U comprises an optionally substituted 5-membered unsaturated heterocycle or a 6,6- or 6,5- or 5,6-fused aromatic ring, or a meta-substituted Ar.

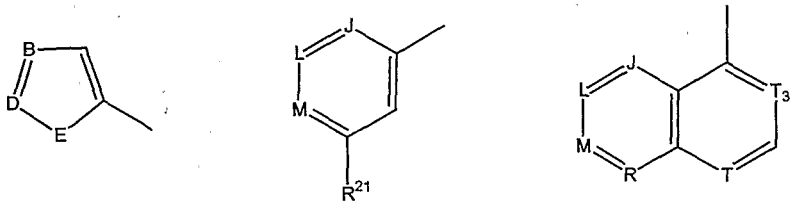
46. A compound as claimed in claim 45, wherein U comprises:



wherein R^{21}, B, D, E, G, J, L, M, R, T, T_2 and T_3 are as defined in claim 1.

47. A compound as claimed in any one of claims 43 to 46, wherein U comprises a substituted 5-membered unsaturated heterocycle or a 6,6-fused aromatic ring, where Ar is as previously defined or a meta-substituted Ar.

48. A compound as claimed in claim 47 wherein U comprises:



wherein E is chosen from oxygen or N-ethyl, D is chosen from nitrogen or CCH_3, B is chosen from nitrogen or CCH_3, R^{21} is chosen from halogen, OMe, CF_3, OCF_3, CH_2NH_2 and J, L, M, R, T and T_3 are as defined in claim 1.

49. A compound as claimed in any one of claims 1 to 47 which is a cis-bicyclic isomer.

50. A compound selected from:

1. (3a*R*,6a*S*)-*N*-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydropyrrolo [3,2-b]pyrrole-1-carbonyl]-butyl}-benzamide;

2. (3a*R*,6a*S*)-*N*-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydropyrrolo [3,2-c]pyrazole-1-carbonyl]-butyl}-benzamide;

3. (3a*S*, 6a*S*)-N-{(1*S*)-3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-2-oxa-1,4-diaza-pentalene-1-carbonyl]-butyl}-benzamide.

4. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

5. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

6. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

7. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

8. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

9. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

10. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

11. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

12. {3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

13. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

14. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

15. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

16. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

17. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

18. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

19. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

20. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

21. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

22. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

23. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

24. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

25. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

26. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

27. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

28. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

29. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

30. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

31. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

32. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

33. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

34. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

35. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

36. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

37. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

38. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

39. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

40. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

41. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

42. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

43. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

44. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

45. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

46. {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

47. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

48. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

49. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

50. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

51. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

52. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

53. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

54. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

55. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

56. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

57. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

58. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

59. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

60. 4-Methyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

61. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

62. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

63. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

64. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

65. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

66. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

67. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

68. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

69. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

70. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

71. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

72. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

73. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

74. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

75. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

76. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

77. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

78. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

79. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

80. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

81. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

82. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

83. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

84. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

85. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

86. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

87. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

88. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

89. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

90. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

91. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

92. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

93. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

94. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

95. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

96. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

97. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3;2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

98. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

99. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

100. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

101. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

102. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

103. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

104. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

105. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

106. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

107. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

108. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

109. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

110. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

111. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

112. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

113. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

114. {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

115. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

116. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

117. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

118. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

119. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

120. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

121. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

122. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

123. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

124. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

125. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

126. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

127. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

128. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

129. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

130. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

131. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

132. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

133. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

134. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

135. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

136. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

137. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

138. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

139. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

140. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

141. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

142. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

143. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

144. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

145. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

146. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

147. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

148. {3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

149. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

150. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

151. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

152. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

153. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

154. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

155. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

156. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

157. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

158. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

159. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

160. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

161. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

162. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

163. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

164. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

165. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

166. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

167. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

168. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

169. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

170. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

171. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

172. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

173. N-{3-Methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

174. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

175. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

176. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

177. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

178. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

179. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

180. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

181. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

182. {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

183. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

184. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

185. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

186. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

187. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

188. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

189. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

190. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

191. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

192. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

193. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

194. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

195. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

196. 4-Methyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

197. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

198. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

199. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

200. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

201. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

202. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

203. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

204. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

205. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

206. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

207. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

208. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

209. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

210. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

211. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

212. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

213. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

214. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

215. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

216. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

217. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

218. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

219. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

220. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

221. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

222. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

223. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

224. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

225. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

226. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

227. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

228. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

229. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

230. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

231. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

232. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

233. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

234. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

235. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

236. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

237. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

238. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

239. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

240. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

241. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

242. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

243. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

244. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

245. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

246. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

247. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

248. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

249. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

250. {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

251. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

252. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

253. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

254. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

255. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

256. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

257. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

258. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

259. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

260. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

261. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

262. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

263. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

264. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

265. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

266. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

267. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

268. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

269. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

270. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

271. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

272. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

273. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

274. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

275. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

276. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

277. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

278. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

279. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

280. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

281. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

282. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

283. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

284. {3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

285. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

286. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

287. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

288. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

289. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

290. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

291. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

292. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

293. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

294. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

295. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

296. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

297. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

298. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

299. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

300. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

301. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

302. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

303. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

304. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

305. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

306. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

307. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

308. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

309. N-{3-Methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

310. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

311. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

312. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

313. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

314. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

315. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

316. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

317. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

318. {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

319. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

320. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

321. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

322. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

323. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

324. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

325. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

326. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

327. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

328. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

329. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

330. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

331. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

332. 4-Methyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

333. 4-Methoxy-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

334. 4-Isopropyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

335. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

336. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

337. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

338. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

339. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

340. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

341. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

342. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

343. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

344. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

345. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

346. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

347. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

348. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

349. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

350. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

351. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

352. {3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

353. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

354. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

355. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

356. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

357. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

358. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

359. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

360. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

361. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

362. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

363. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

364. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

365. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

366. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

367. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

368. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

369. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

370. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

371. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

372. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

373. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

374. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

375. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

376. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

377. N-{3-Methyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

378. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

379. Quinoline-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

380. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

381. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

382. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

383. 4-*tert*-Butyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

384. 4-Dimethylamino-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

385. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

386. {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

387. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

388. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

389. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

390. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

391. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

392. Quinoline-6-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

393. Furan-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

394. Thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

395. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

396. Furan-3-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

397. Thiophene-3-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

398. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

399. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

400. 4-Methyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

401. 4-Methoxy-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

402. 4-Isopropyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

403. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

404. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

405. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

406. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

407. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

408. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

409. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

410. 4-Difluoromethoxy-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

411. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

412. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

413. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

414. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

415. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

416. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

417. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

418. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

419. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

420. {3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

421. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

422. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

423. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

424. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

425. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

426. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

427. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

428. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

429. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

430. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

431. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

432. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

433. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

434. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

435. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

436. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

437. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

438. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

439. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

440. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

441. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

442. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

443. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

444. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

445. N-{3-Methyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

446. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

447. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

448. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

449. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

450. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

451. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

452. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

453. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

454. {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

455. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

456. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

457. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

458. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

459. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

460. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

461. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

462. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

463. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

464. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

465. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

466. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

467. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

468. 4-Methyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

469. 4-Methoxy-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

470. 4-Isopropyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

471. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

472. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

473. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

474. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

475. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

476. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

477. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

478. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

479. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

480. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

481. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

482. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

483. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

484. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

485. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

486. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

487. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

488. {3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

489. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

490. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

491. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

492. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

493. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

494. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

495. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

496. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

497. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

498. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

499. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

500. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

501. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

502. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

503. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

504. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

505. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

506. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

507. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

508. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

509. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

510. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

511. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

512. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

513. N-{3-Methyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

514. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

515. Quinoline-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

516. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

517. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

518. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

519. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

520. 4-Dimethylamino-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

521. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

522. {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

523. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

524. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

525. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

526. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

527. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

528. Quinoline-6-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

529. Furan-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

530. Thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

531. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

532. Furan-3-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

533. Thiophene-3-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

534. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

535. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

536. 4-Methyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

537. 4-Methoxy-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

538. 4-Isopropyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

539. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

540. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

541. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

542. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

543. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

544. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

545. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

546. 4-Difluoromethoxy-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

547. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

548. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

549. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

550. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

551. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

552. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

553. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

554. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

555. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

556. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

557. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

558. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

559. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

560. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

561. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

562. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

563. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

564. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

565. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

566. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

567. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

568. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

569. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

570. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

571. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

572. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

573. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

574. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

575. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

576. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

577. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

578. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

579. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

580. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

581. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

582. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

583. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

584. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

585. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

586. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

587. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

588. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

589. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

590. {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

591. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

592. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

593. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

594. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

595. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

596. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

597. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

598. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

599. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

600. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

601. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

602. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

603. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

604. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

605. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

606. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

607. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

608. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

609. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

610. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

611. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

612. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

613. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

614. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

615. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

616. Naphthalene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

617. Quinoline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

618. Benzo[b]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

619. Benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

620. Biphenyl-4-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

621. 4-*tert*-Butyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

622. 4-Dimethylamino-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

623. 7-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

624. {3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

625. 5-Methoxy-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

626. Thieno[3,2-*b*]thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

627. 3-Methyl-benzofuran-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

628. Quinoxaline-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

629. Benzo[1,3]dioxole-5-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

630. Quinoline-6-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

631. Furan-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

632. Thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

633. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

634. Furan-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

635. Thiophene-3-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

636. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

637. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

638. 4-Methyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

639. 4-Methoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

640. 4-Isopropyl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

641. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

642. 4-Imidazol-1-yl-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

643. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

644. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

645. 5-Phenyl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

646. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

647. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

648. 4-Difluoromethoxy-N-{3-methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

649. N-{3-Methyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

650. Naphthalene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

651. Quinoline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

652. Benzo[b]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

653. Benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

654. Biphenyl-4-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

655. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

656. 4-Dimethylamino-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

657. 7-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

658. {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-carbamic acid benzyl ester;

659. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

660. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

661. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

662. Quinoxaline-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

663. Benzo[1,3]dioxole-5-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

664. Quinoline-6-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

665. Furan-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

666. Thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

667. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethyl-benzamide;

668. Furan-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

669. Thiophene-3-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

670. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-phenoxy-benzamide;

671. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

672. 4-Methyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

673. 4-Methoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

674. 4-Isopropyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

675. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-vinyl-benzamide;

676. 4-Imidazol-1-yl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

677. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

678. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-oxazol-5-yl-benzamide;

679. 5-Phenyl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

680. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-trifluoromethoxy-benzamide;

681. 5-Pyridin-2-yl-thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

682. 4-Difluoromethoxy-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

683. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

684. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

685. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

686. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

687. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

688. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

689. N-{1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

690. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

691. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

692. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

693. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

694. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

695. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

696. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

697. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

698. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

699. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

700. N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

701. N-{2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

702. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

703. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

704. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

705. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

706. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

707. N-{1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

708. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

709. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

710. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

711. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

712. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

713. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

714. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

715. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

716. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

717. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

718. N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

719. N-{2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

720. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

721. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

722. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

723. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

724. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

725. N-{1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

726. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

727. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

728. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

729. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

730. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

731. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

732. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

733. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

734. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

735. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

736. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

737. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

738. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

739. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

740. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

741. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

742. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

743. N-{1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

744. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

745. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

746. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

747. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

748. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

749. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

750. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

751. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

752. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

753. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

754. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

755. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

756. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

757. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

758. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

759. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

760. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

761. N-{1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

762. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

763. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

764. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

765. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

766. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

767. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

768. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

769. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

770. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

771. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

772. N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

773. N-{2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

774. 4-*tert*-Butyl-N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

775. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

776. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

777. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

778. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

779. N-{1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

780. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

781. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

782. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

783. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

784. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

785. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

786. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

787. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

788. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

789. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

790. N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

791. N-{2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

792. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

793. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

794. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

795. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

796. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

797. N-{1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

798. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

799. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

800. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

801. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

802. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

803. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

804. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

805. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

806. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

807. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

808. N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

809. N-{2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

810. 4-*tert*-Butyl-N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

811. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

812. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

813. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

814. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

815. N-{1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

816. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

817. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

818. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

819. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

820. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

821. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

822. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

823. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

824. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

825. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

826. N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

827. N-{2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

828. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

829. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

830. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

831. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

832. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

833. N-{1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

834. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

835. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

836. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

837. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

838. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

839. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

840. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

841. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

842. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

843. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

844. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

845. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

846. 4-*tert*-Butyl-N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-benzamide;

847. 5-Methoxy-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

848. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

849. 3-Methyl-benzofuran-2-carboxylic acid {1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-amide;

850. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-phenoxy-benzamide;

851. N-{1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-cyclohexyl}-4-thiophen-2-yl-benzamide;

852. 4-*tert*-Butyl-N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

853. 5-Methoxy-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

854. Thieno[3,2-*b*]thiophene-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

855. 3-Methyl-benzofuran-2-carboxylic acid {1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

856. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-phenoxy-benzamide;

857. N-{1-cyclopropylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-4-thiophen-2-yl-benzamide;

858. 4-*tert*-Butyl-N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-benzamide;

859. 5-Methoxy-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

860. Thieno[3,2-*b*]thiophene-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

861. 3-Methyl-benzofuran-2-carboxylic acid {2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-amide;

862. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-phenoxy-benzamide;

863. N-{2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-1-thiophen-2-ylmethyl-ethyl}-4-thiophen-2-yl-benzamide;

864. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

865. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

866. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

867. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

868. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

869. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

870. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

871. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

872. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

873. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

874. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

875. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

876. 2-Isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

877. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

878. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

879. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

880. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

881. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

882. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

883. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

884. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

885. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

886. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

887. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

888. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

889. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

890. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

891. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

892. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

893. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

894. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

895. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

896. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

897. 2-Isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

898. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

899. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

900. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

901. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

902. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

903. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

904. 2-Isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

905. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

906. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

907. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

908. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

909. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

910. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

911. 2-Isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

912. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

913. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

914. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

915. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

916. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

917. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

918. 2-Isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

919. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

920. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

921. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

922. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

923. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

924. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

925. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

926. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

927. 2-Isobutyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

928. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-piperazin-1-yl-butane-1,4-dione;

929. 2-Isobutyl-4-(4-methyl-piperazin-1-yl)-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

930. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(4-phenyl-piperazin-1-yl)-butane-1,4-dione;

931. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(3,4,4a,8a-tetrahydro-1H-isoquinolin-2-yl)-butane-1,4-dione;

932. 2-Isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-4-(1,3,3a,7a-tetrahydro-isoindol-2-yl)-butane-1,4-dione;

933. 4-(4-Benzyl-piperazin-1-yl)-2-isobutyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

934. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

935. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

936. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

937. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

938. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

939. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

940. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

941. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

942. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

943. 4-(2-Biphenyl-3-yl-4-methyl-pentanoyl)-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

944. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

945. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

946. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

947. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

948. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

949. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

950. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

951. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

952. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

953. 4-[4-Methyl-2-(3-pyridin-2-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

954. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

955. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

956. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

957. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

958. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

959. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

960. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

961. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

962. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

963. 4-[4-Methyl-2-(3-pyridin-3-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

964. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

965. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

966. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

967. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

968. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

969. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

970. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

971. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

972. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

973. 4-[4-Methyl-2-(3-pyridin-4-yl-phenyl)-pentanoyl]-1-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-3-one;

974. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

975. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

976. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

977. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

978. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

979. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

980. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

981. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

982. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

983. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

984. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

985. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

986. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

987. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

988. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

989. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

990. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

991. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

992. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

993. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

994. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

995. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

996. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

997. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

998. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

999. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1000. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1001. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1002. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1003. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1004. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1005. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1006. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1007. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1008. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1009. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1010. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1011. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1012. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1013. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1014. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1015. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1016. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1017. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1018. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1019. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1020. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1021. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1022. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1023. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1024. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1025. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1026. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1027. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1028. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1029. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1030. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1031. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1032. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1033. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1034. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1035. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1036. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1037. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1038. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1039. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1040. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1041. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1042. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1043. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1044. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1045. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1046. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1047. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1048. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1049. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1050. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1051. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1052. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1053. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1054. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1055. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1056. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1057. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1058. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1059. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1060. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1061. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1062. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1063. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1064. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1065. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1066. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1067. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1068. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1069. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1070. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1071. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1072. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1073. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1074. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1075. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1076. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1077. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1078. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1079. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1080. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1081. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1082. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1083. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1084. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1085. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1086. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1087. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1088. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1089. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1090. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1091. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1092. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1093. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1094. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1095. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1096. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1097. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1098. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1099. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1100. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1101. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1102. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1103. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1104. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1105. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1106. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1107. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1108. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1109. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1110. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1111. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1112. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1113. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1114. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1115. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1116. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1117. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1118. Furan-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1119. Thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1120. Benzo[b]thiophene-3-carboxylic acid {3,3-dimethyl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1121. Furan-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1122. Thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1123. Benzo[b]thiophene-3-carboxylic acid {1-cyclohexylmethyl-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1124. Naphthalene-1-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1125. Quinoline-8-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1126. 4-*tert*-Butyl-N-{1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1127. 4-*tert*-Butyl-N-{1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1128. 4-*tert*-Butyl-N-{1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1129. 4-*tert*-Butyl-N-{1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-benzamide;

1130. Biphenyl-4-carboxylic acid {1-(4-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1131. Biphenyl-4-carboxylic acid {1-(4-fluoro-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1132. Biphenyl-4-carboxylic acid {1-(4-methoxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1133. Biphenyl-4-carboxylic acid {1-(3-hydroxy-benzyl)-2-oxo-2-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-ethyl}-amide;

1134. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1135. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1136. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1137. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1138. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1139. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1140. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1141. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1142. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1143. 2-Cyclohexylmethyl-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1144. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1145. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1146. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1147. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1148. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1149. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(2-pyridin-3-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1150. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1151. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1152. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-2-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione;

1153. 2-(2,2-Dimethyl-propyl)-4-morpholin-4-yl-1-[6-oxo-4-(1-oxy-pyridin-3-ylmethanesulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrol-1-yl]-butane-1,4-dione.

51. A compound selected from:

1154. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butylbenzamide;

1155. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1156. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1157. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1158. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1159. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1160. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-*tert*-butyl-benzamide;

1161. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1162. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1163. 4-*tert*-Butyl-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1164. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1165. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1166. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1167. 4-[2-(4-*tert*-Butyl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1168. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1169. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1170. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1171. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1172. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1173. 4-*tert*-Butyl-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1174. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1175. 4-*tert*-Butyl-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1176. 4-*tert*-Butyl-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1177. 4-*tert*-Butyl-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1178. 4-*tert*-Butyl-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1179. 4-*tert*-Butyl-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1180. 4-*tert*-Butyl-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1181. 4-*tert*-Butyl-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1182. 4-*tert*-Butyl-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1183. 4-*tert*-Butyl-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1184. 4-*tert*-Butyl-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1185. 4-*tert*-Butyl-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1186. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1187. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1188. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1189. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1190. 4-*tert*-Butyl-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1191. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1192. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1193. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1194. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1195. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1196. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-tert-butyl-benzamide;

1197. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1198. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1199. 4-*tert*-Butyl-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1200. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1201. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1202. 4-*tert*-Butyl-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1203. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1204. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1205. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1206. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1207. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1208. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1209. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-*tert*-butyl-benzamide;

1210. 4-*tert*-Butyl-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1211. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1212. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1213. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1214. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1215. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1216. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1217. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1218. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1219. 4-*tert*-Butyl-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1220. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1221. 4-*tert*-Butyl-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1222. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1223. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1224. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1225. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1226. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1227. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1228. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1229. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1230. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1231. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-*tert*-butyl-benzamide;

1232. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1233. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1234. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1235. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1236. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1237. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1238. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1239. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1240. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1241. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1242. 4-*tert*-Butyl-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1243. 4-*tert*-Butyl-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1244. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylaminobenzamide;

1245. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1246. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1247. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1248. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1249. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1250. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-dimethylamino-benzamide;

1251. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1252. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1253. 4-Dimethylamino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1254. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1255. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1256. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1257. 4-[2-(4-Dimethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1258. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1259. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1260. 4-Dimethylamino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1261. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1262. 4-Dimethylamino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1263. 4-Dimethylamino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1264. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1265. 4-Dimethylamino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1266. 4-Dimethylamino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1267. 4-Dimethylamino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1268. 4-Dimethylamino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1269. 4-Dimethylamino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1270. 4-Dimethylamino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1271. 4-Dimethylamino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1272. 4-Dimethylamino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1273. 4-Dimethylamino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1274. 4-Dimethylamino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1275. 4-Dimethylamino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1276. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1277. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1278. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1279. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1280. 4-Dimethylamino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1281. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1282. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1283. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1284. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1285. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1286. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1287. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1288. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1289. 4-Dimethylamino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1290. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1291. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1292. 4-Dimethylamino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1293. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1294. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1295. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1296. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1297. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1298. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1299. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-dimethylamino-benzamide;

1300. 4-Dimethylamino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1301. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1302. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1303. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1304. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1305. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1306. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1307. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1308. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1309. 4-Dimethylamino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1310. 4-Dimethylamino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1311. 4-Dimethylamino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1312. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1313. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1314. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1315. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1316. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1317. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1318. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1319. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1320. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1321. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-dimethylamino-benzamide;

1322. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1323. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1324. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1325. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1326. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1327. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1328. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1329. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1330. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1331. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1332. 4-Dimethylamino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1333. 4-Dimethylamino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1334. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1335. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1336. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1337. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1338. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1339. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1340. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1341. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1342. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1343. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-thiophen-2-yl-benzamide;

1344. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1345. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1346. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1347. 4-[4-Methyl-2-(4-thiophen-2-yl-benzoylamino)-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1348. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1349. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1350. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1351. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1352. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1353. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-thiophen-2-yl-benzamide;

1354. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1355. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1356. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1357. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1358. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1359. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1360. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1361. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1362. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-thiophen-2-yl-benzamide;

1363. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1364. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1365. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1366. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1367. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1368. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1369. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1370. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1371. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1372. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1373. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1374. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1375. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1376. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1377. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1378. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1379. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1380. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1381. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1382. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1383. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1384. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1385. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1386. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1387. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1388. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1389. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-thiophen-2-yl-benzamide;

1390. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1391. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1392. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1393. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1394. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1395. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1396. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1397. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1398. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1399. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-thiophen-2-yl-benzamide;

1400. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1401. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-thiophen-2-yl-benzamide;

1402. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1403. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1404. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1405. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1406. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1407. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1408. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1409. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1410. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1411. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1412. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1413. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1414. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1415. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1416. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1417. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1418. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1419. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1420. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1421. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1422. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1423. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-thiophen-2-yl-benzamide;

1424. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1425. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1426. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1427. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1428. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1429. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1430. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1431. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1432. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1433. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1434. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1435. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1436. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1437. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1438. 5-Phenyl-thiophene-2-carboxylic acid-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-amide;

1439. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid phenylamide;

1440. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid isobutyl-amide;

1441. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid phenyl ester;

1442. 4-{4-Methyl-2-[(5-phenyl-thiophene-2-carbonyl)-amino]-pentanoyl}-3-oxo-hexahydro-pyrrolo[3,2-b]pyrrole-1-carboxylic acid isobutyl ester;

1443. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1444. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1445. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1446. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1447. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1448. 5-Phenyl-thiophene-2-carboxylic acid-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-amide;

1449. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1450. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1451. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1452. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1453. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1454. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1455. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1456. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1457. 5-Phenyl-thiophene-2-carboxylic acid-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-amide;

1458. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1459. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1460. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1461. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1462. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1463. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1464. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1465. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1466. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1467. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1468. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1469. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1470. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1471. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1472. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1473. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1474. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1475. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1476. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1477. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1478. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1479. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1480. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1481. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1482. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1483. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1484. 5-Phenyl-thiophene-2-carboxylic acid-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-amide;

1485. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1486. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1487. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1488. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1489. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1490. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1491. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1492. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1493. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1494. 5-Phenyl-thiophene-2-carboxylic acid-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-amide;

1495. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1496. 5-Phenyl-thiophene-2-carboxylic acid-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-amide;

1497. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1498. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1499. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1500. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1501. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1502. 5-Phenyl-thiophene-2-carboxylic acid {1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1503. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1504. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1505. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1506. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1507. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1508. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1509. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1510. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1511. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1512. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1513. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1514. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1515. 5-Phenyl-thiophene-2-carboxylic acid =-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1516. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1517. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1518. 5-Phenyl-thiophene-2-carboxylic acid-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-amide;

1519. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-ylbenzamide;

1520. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1521. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1522. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1523. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1524. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1525. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1526. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1527. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1528. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1529. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1530. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1531. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1532. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1533. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-pyrrolidin-1-yl-benzamide;

1534. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1535. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1536. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1537. 4-[2-(4-pyrrolidin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1538. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1539. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1540. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1541. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1542. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1543. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-pyrrolidin-1-yl-benzamide;

1544. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1545. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1546. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1547. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1548. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1549. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1550. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1551. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1552. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-pyrrolidin-1-yl-benzamide;

1553. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1554. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1555. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1556. 4-Pyrrolidin-1-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1557. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1558. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1559. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1560. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1561. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1562. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1563. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1564. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1565. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1566. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1567. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1568. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1569. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1570. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1571. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1572. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1573. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1574. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1575. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1576. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1577. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1578. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1579. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-pyrrolidin-1-yl-benzamide;

1580. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1581. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1582. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1583. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1584. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1585. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1586. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1587. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1588. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1589. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-pyrrolidin-1-yl-benzamide;

1590. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1591. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-pyrrolidin-1-yl-benzamide;

1592. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1593. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1594. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1595. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1596. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1597. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1598. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1599. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1600. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1601. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1602. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1603. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1604. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1605. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1606. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1607. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1608. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1609. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1610. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1611. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1612. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1613. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-pyrrolidin-1-yl-benzamide;

1614. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-ylbenzamide;

1615. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1616. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1617. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1618. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1619. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1620. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1621. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1622. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1623. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-morpholin-4-yl-benzamide;

1624. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1625. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1626. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1627. 4-[2-(4-morpholin-4-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1628. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1629. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1630. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1631. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1632. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1633. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-morpholin-4-yl-benzamide;

1634. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1635. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1636. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1637. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1638. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1639. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1640. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1641. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1642. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-morpholin-4-yl-benzamide;

1643. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1644. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1645. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1646. 4-morpholin-4-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1647. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1648. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1649. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1650. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1651. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1652. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1653. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1654. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1655. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1656. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1657. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1658. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1659. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1660. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1661. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1662. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1663. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1664. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1665. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1666. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1667. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1668. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1669. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-morpholin-4-yl-benzamide;

1670. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1671. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1672. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1673. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1674. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1675. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1676. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1677. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1678. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1679. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-morpholin-4-yl-benzamide;

1680. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1681. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-morpholin-4-yl-benzamide;

1682. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1683. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1684. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1685. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1686. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1687. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1688. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1689. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1690. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1691. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1692. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1693. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1694. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1695. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1696. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1697. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1698. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1699. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1700. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1701. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1702. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1703. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-morpholin-4-yl-benzamide;

1704. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-ylbenzamide;

1705. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1706. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1707. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1708. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1709. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1710. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1711. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1712. *N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1713. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1714. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1715. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1716. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1717. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1718. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-piperazin-1-yl-benzamide;

1719. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1720. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1721. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1722. 4-[2-(4-piperazin-1-yl-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1723. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1724. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1725. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1726. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1727. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1728. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-piperazin-1-yl-benzamide;

1729. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1730. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1731. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1732. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1733. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1734. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1735. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1736. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1737. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-piperazin-1-yl-benzamide;

1738. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1739. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1740. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1741. 4-piperazin-1-yl-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1742. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1743. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1744. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1745. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1746. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1747. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1748. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1749. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1750. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1751. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1752. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1753. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1754. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1755. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1756. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1757. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1758. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1759. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1760. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1761. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1762. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1763. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1764. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-piperazin-1-yl-benzamide;

1765. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1766. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1767. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1768. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1769. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1770. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1771. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1772. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1773. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1774. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-piperazin-1-yl-benzamide;

1775. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1776. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-piperazin-1-yl-benzamide;

1777. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1778. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1779. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1780. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1781. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1782. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1783. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1784. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1785. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1786. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1787. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1788. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1789. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1790. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1791. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1792. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1793. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1794. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1795. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1796. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1797. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1798. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-piperazin-1-yl-benzamide;

1799. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)benzamide;

1800. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1801. *N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1802. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1803. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1804. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1805. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1806. *N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1807. *N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1808. *N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1809. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1810. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1811. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1812. 4-[2-(4-(4-methyl-piperazin-1-yl)-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1813. *N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1814. *N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1815. *N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1816. *N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1817. *N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1818. *N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-4-(4-methyl-piperazin-1-yl)-benzamide;

1819. *N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1820. *N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1821. *N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1822. *N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1823. *N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1824. *N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1825. *N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1826. *N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1827. *N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1828. *N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1829. *N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1830. *N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1831. 4-(4-methyl-piperazin-1-yl)-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1832. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1833. *N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1834. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1835. *N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1836. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1837. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1838. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1839. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1840. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1841. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1842. *N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1843. *N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1844. *N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1845. *N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1846. *N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1847. *N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1848. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1849. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1850. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1851. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1852. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1853. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1854. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-(4-methyl-piperazin-1-yl)-benzamide;

1855. *N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1856. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1857. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1858. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1859. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1860. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1861. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1862. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1863. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1864. *N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-4-(4-methyl-piperazin-1-yl)-benzamide;

1865. *N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1866. *N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1867. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1868. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1869. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1870. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1871. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1872. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1873. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1874. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1875. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1876. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1877. *N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1878. *N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1879. *N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1880. *N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1881. *N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1882. *N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1883. *N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1884. *N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1885. *N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1886. *N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1887. *N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1888. *N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-(4-methyl-piperazin-1-yl)-benzamide;

1889. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-aminobenzamide;

1890. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1891. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1892. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1893. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1894. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1895. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1896. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-amino-benzamide;

1897. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1898. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1899. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1900. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1901. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1902. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1903. 4-Amino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1904. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

1905. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

1906. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

1907. 4-[2-(4-amino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

1908. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1909. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1910. 4-Amino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1911. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1912. 4-Amino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1913. 4-Amino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

1914. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1915. 4-Amino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1916. 4-Amino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1917. 4-Amino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1918. 4-Amino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1919. 4-Amino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1920. 4-Amino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1921. 4-Amino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1922. 4-Amino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

1923. 4-Amino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1924. 4-Amino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1925. 4-Amino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1926. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1927. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1928. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1929. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1930. 4-Amino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1931. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-Amino-benzamide;

1932. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1933. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1934. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1935. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1936. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1937. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1938. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1939. 4-Amino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1940. 4-Amino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1941. 4-Amino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1942. 4-Amino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1943. *N*-{1-[4-(2-amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1944. *N*-{1-[4-(2-amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1945. *N*-{1-[4-(2-acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1946. *N*-{1-[4-(2-acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1947. *N*-{1-[4-(2-acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1948. *N*-{1-[4-(2-acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1949. *N*-(1-{4-[2-(acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-amino-benzamide;

1950. 4-Amino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1951. *N*-{1-[4-(2-amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1952. *N*-{1-[4-(2-acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1953. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1954. *N*-{1-[4-(2-acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1955. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1956. *N*-{1-[4-(2-acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1957. *N*-{1-[4-(2-amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1958. *N*-{1-[4-(2-acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1959. 4-Amino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1960. 4-Amino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1961. 4-Amino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1962. *N*-{1-[4-(2-amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1963. *N*-{1-[4-(2-acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1964. *N*-{1-[4-(2-amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1965. *N*-{1-[4-(2-acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1966. *N*-{1-[4-(2-amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1967. *N*-{1-[4-(2-acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1968. *N*-{1-[4-(2-amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1969. *N*-{1-[4-(2-acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1970. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1971. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-amino-benzamide;

1972. 4-Amino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1973. 4-Amino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1974. 4-Amino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1975. 4-Amino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1976. 4-Amino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1977. 4-Amino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1978. 4-Amino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1979. 4-Amino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1980. 4-Amino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1981. 4-Amino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1982. 4-Amino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1983. 4-Amino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

1984. *N*-[1-(4-Benzoyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-diethylaminobenzamide;

1985. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1986. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1987. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1988. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1989. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1990. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1991. *N*-[1-(4-Benzenesulfonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-4-diethylamino-benzamide;

1992. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1993. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-2-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1994. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1995. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-3-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1996. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1997. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(1-oxy-pyridine-4-sulfonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

1998. 4-Diethylamino-*N*-[3-methyl-1-(6-oxo-4-phenylacetyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

1999. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenylamide;

2000. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl-amide;

2001. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid phenyl ester;

2002. 4-[2-(4-diethylamino-benzoylamino)-4-methyl-pentanoyl]-3-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carboxylic acid isobutyl ester;

2003. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2004. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2005. 4-Diethylamino-*N*-{3-methyl-1-[4-(morpholine-4-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2006. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperazine-1-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2007. 4-Diethylamino-*N*-{3-methyl-1-[4-(4-methyl-piperazine-1-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2008. 4-Diethylamino-*N*-(3-methyl-1-{4-[2-(4-methyl-piperazin-1-yl)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-butyl)-benzamide;

2009. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(2-piperazin-1-yl-acetyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2010. 4-Diethylamino-*N*-{1-[4-(furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2011. 4-Diethylamino-*N*-{1-[4-(5-chloro-furan-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2012. 4-Diethylamino-*N*-{1-[4-(thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2013. 4-Diethylamino-*N*-{1-[4-(5-chloro-thiophene-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2014. 4-Diethylamino-*N*-{1-[4-(furan-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2015. 4-Diethylamino-*N*-{1-[4-(thiophene-3-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2016. 4-Diethylamino-*N*-[1-(4-cyclopentanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

2017. 4-Diethylamino-*N*-[1-(4-cyclohexanecarbonyl-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-3-methyl-butyl]-benzamide;

2018. 4-Diethylamino-*N*-{1-[4-(cyclopent-3-enecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2019. 4-Diethylamino-*N*-{1-[4-(2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2020. 4-Diethylamino-*N*-{1-[4-(2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2021. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(pyrrolidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2022. *N*-{1-[4-(1-Acetyl-pyrrolidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2023. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(piperidine-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2024. *N*-{1-[4-(1-Acetyl-piperidine-2-carbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2025. 4-Diethylamino-*N*-{3-methyl-1-[6-oxo-4-(tetrahydro-furan-2-carbonyl)-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2026. *N*-{1-[4-(1-Amino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2027. *N*-{1-[4-(1-Amino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2028. *N*-{1-[4-(1-Amino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2029. *N*-{1-[4-(1-Acetylamino-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2030. *N*-{1-[4-(1-Acetylamino-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2031. *N*-{1-[4-(1-Acetylamino-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2032. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2033. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2034. 4-Diethylamino-*N*-{1-[4-(1-hydroxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2035. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclobutanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2036. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclopentanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2037. 4-Diethylamino-*N*-{1-[4-(1-methoxy-cyclohexanecarbonyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2038. *N*-{1-[4-(2-Amino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2039. *N*-{1-[4-(2-Amino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2040. *N*-{1-[4-(2-Acetylamino-2-cyclopentyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2041. *N*-{1-[4-(2-Acetylamino-2-cyclohexyl-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2042. *N*-{1-[4-(2-Acetylamino-propionyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2043. *N*-{1-[4-(2-Acetylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2044. *N*-(1-{4-[2-(Acetyl-methyl-amino)-acetyl]-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl}-3-methyl-butyl)-4-diethylamino-benzamide;

2045. 4-Diethylamino-*N*-{1-[4-(2-dimethylamino-acetyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2046. *N*-{1-[4-(2-Amino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2047. *N*-{1-[4-(2-Acetylamino-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2048. *N*-{1-[4-(2-amino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2049. *N*-{1-[4-(2-Acetylamino-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2050. *N*-{1-[4-(2-amino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2051. *N*-{1-[4-(2-Acetylamino-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2052. *N*-{1-[4-(2-Amino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2053. *N*-{1-[4-(2-Acetylamino-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2054. 4-Diethylamino-*N*-[3-methyl-1-(6-oxo-4-pentanoyl-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl)-butyl]-benzamide;

2055. 4-Diethylamino-*N*-{3-methyl-1-[4-(3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2056. 4-Diethylamino-*N*-{3-methyl-1-[4-(4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-butyl}-benzamide;

2057. *N*-{1-[4-(2-Amino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2058. *N*-{1-[4-(2-Acetylamino-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2059. *N*-{1-[4-(2-Amino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2060. *N*-{1-[4-(2-Acetylamino-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2061. *N*-{1-[4-(2-Amino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2062. *N*-{1-[4-(2-Acetylamino-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2063. *N*-{1-[4-(2-Amino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2064. *N*-{1-[4-(2-Acetylamino-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2065. *N*-{1-[4-(2-hydroxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2066. *N*-{1-[4-(2-methoxy-3-methyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-4-diethylamino-benzamide;

2067. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2068. 4-Diethylamino-*N*-{1-[4-(2-methoxy-3,3-dimethyl-butyryl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2069. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2070. 4-Diethylamino-*N*-{1-[4-(2-methoxy-3-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2071. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2072. 4-Diethylamino-*N*-{1-[4-(2-methoxy-4-methyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2073. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2074. 4-Diethylamino-*N*-{1-[4-(2-methoxy-4,4-dimethyl-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2075. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2076. 4-Diethylamino-*N*-{1-[4-(2-methoxy-pentanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2077. 4-Diethylamino-*N*-{1-[4-(2-hydroxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

2078. 4-Diethylamino-*N*-{1-[4-(2-methoxy-5-methyl-hexanoyl)-6-oxo-hexahydro-pyrrolo[3,2-*b*]pyrrole-1-carbonyl]-3-methyl-butyl}-benzamide;

52. A method of validating a known or putative cysteine protease inhibitor as a therapeutic target, the method comprising:

(a) assessing the *in vitro* binding of a compound as claimed in any one of claims 1 to 51 to an isolated known or putative cysteine protease, providing a measure of potency; and optionally, one or more of the steps of:

(b) assessing the binding of a compound as claimed in any one of claims 1 to 51 to closely related homologous proteases of the target and general house-keeping proteases (e.g. trypsin) to provides a measure of selectivity;

(c) monitoring a cell-based functional marker of a particular cysteine protease activity, in the presence of a compound as claimed in any one of claims 1 to 51; and

(d) monitoring an animal model-based functional marker of a particular cysteine protease activity in the presence of a compound as claimed in any one of claims 1 to 51.

53. The use of a compound as claimed in any one of claims 1 to 51 in the validation of a known or putative cysteine protease inhibitor as a therapeutic target.

54. A compound as claimed in any one of claims 1 to 51 for use in medicine, especially for preventing or treating diseases in which the disease pathology may be modified by inhibiting a cysteine protease.

55. The use of a compound as claimed in any one of claims 1 to 51 in the preparation of a medicament for preventing or treating diseases in which the disease pathology may be modified by inhibiting a cysteine protease.

56. A compound as claimed in any one of claims 1 to 51 for use in the treatment of osteoporosis, Paget's disease, gingival diseases such as gingivitis and periodontitis, hypercalaemia of malignancy, metabolic bone disease, diseases

involving matrix or cartilage degradation, in particular osteoarthritis or rheumatoid arthritis and neoplastic diseases.

57. The use of a compound as claimed in any one of claims 1 to 51 in the preparation of a medicament for the treatment of osteoporosis, Paget's disease, gingival diseases such as gingivitis and periodontitis, hypercalaemia of malignancy, metabolic bone disease, diseases involving matrix or cartilage degradation, in particular osteoarthritis or rheumatoid arthritis and neoplastic diseases.

58. A pharmaceutical or veterinary composition comprising one or more compounds as claimed in any one of claims 1 to 51 and a pharmaceutically or veterinarily acceptable carrier.

59. A process for the preparation of a pharmaceutical or veterinary composition as claimed in claim 58, the process comprising bringing the active compound(s) into association with the carrier, for example by admixture.