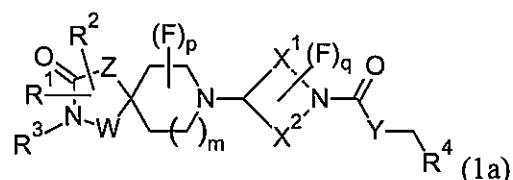


CLAIMS

1. A compound of the formula (1a):



or a salt thereof, wherein:

“F” is fluorine;

m is 1;

p is 0, 1 or 2;

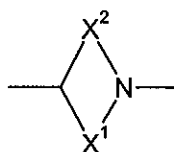
q is 0, 1 or 2;

W is C;

Z is CH₂;

Y is NH, O, S or CH₂;

X¹ and X² are saturated hydrocarbon groups which together contain a total of five to nine carbon atoms and which link together such that the moiety:



forms a bridged bicyclic ring system;

R¹ can be H, halo, CN, OH, C₁₋₃ alkoxy, NH₂, optionally substituted C₁₋₆ alkyl, optionally substituted C₂₋₆ alkenyl, optionally substituted C₂₋₆ alkynyl, optionally substituted C₃₋₆ cycloalkyl, optionally substituted C₃₋₆ cycloalkenyl, NR⁵R⁶, COOR⁵, CONR⁵R⁶, NR⁷CONR⁵R⁶, NR⁷COOR⁵, OCONR⁵R⁶, SR⁵, SOR⁵, SO₂R⁵, SO₃R⁵ or CH₂-W^a, where W^a is an optionally substituted 5 or 6 membered cycloalkyl, heterocycloalkyl, aryl or heteroaryl ring,

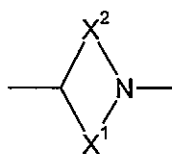
R² is H;

R³ is H, OH, or an optionally substituted C₁₋₆ non-aromatic hydrocarbon group;

R^4 can be H, optionally substituted C_{1-5} alkyl, optionally substituted C_{2-5} alkenyl, optionally substituted C_{2-5} alkynyl, optionally substituted C_{3-6} cycloalkyl, or optionally substituted C_{3-6} cycloalkenyl; and

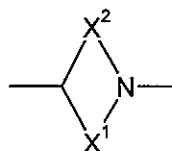
R^5 , R^6 and R^7 can be independently H or C_{1-6} alkyl.

2. A compound according to claim 1, wherein R^1 is selected from H, halo, CN, OH, C_{1-3} alkoxy, NH_2 , optionally substituted C_{1-5} alkyl and benzyl.
3. A compound according to claim 1, wherein R^4 is selected from H, methyl, fluoromethyl, ethyl, ethynyl and 1-propynyl.
4. A compound according to claim 3 wherein p is 0 and q is 0.
5. A compound according to claim 1 wherein the moiety

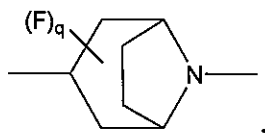
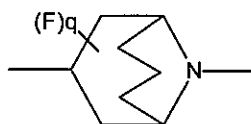
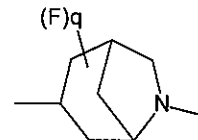


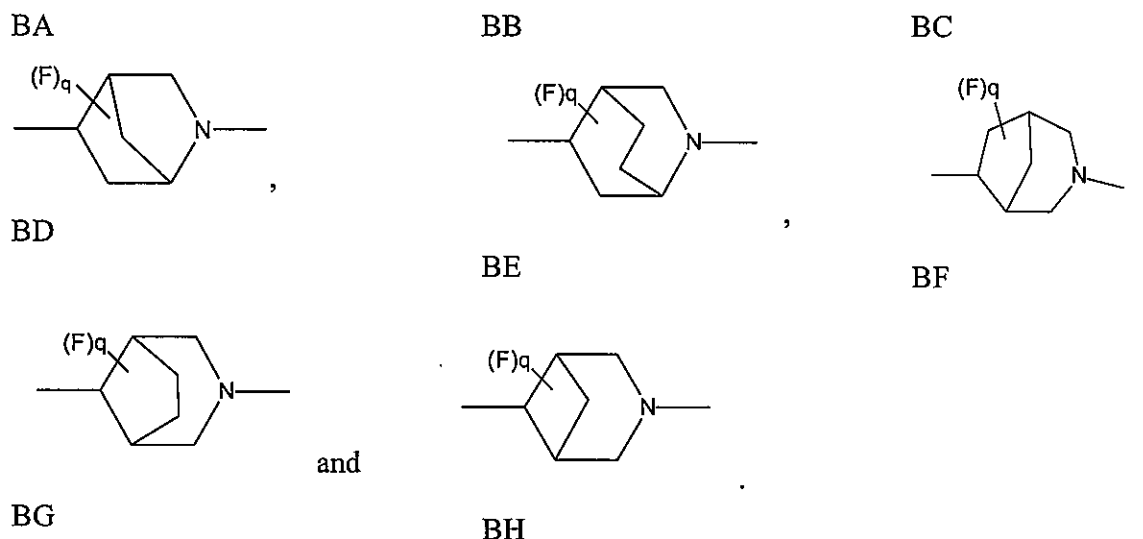
is an azabicyclo-heptane, azabicyclo-octane or azabicyclo-nonane ring system.

6. A compound according to claim 5 where the moiety



is selected from ring systems BA to BH below which may be substituted with 0-2 optional fluorine atoms (q is 0-2):





7. A compound according to claim 1 which is selected from the group consisting of:
 ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,
 prop-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,
 ethyl (3-*endo*)-3-(2-hydroxy-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,
 ethyl 5-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-2-azabicyclo[2.2.2]octane-2-carboxylate,
 and
 ethyl 6-(2-oxo-1-oxa-3,8-diazaspiro[4.5]dec-8-yl)-3-azabicyclo[3.2.1]octane-3-carboxylate
 or a salt thereof.
8. A compound according to claim 1 which is selected from the group consisting of:
 ethyl 5-(2-oxo-1-oxa-3,8-diazaspiro[4.5]dec-8-yl)-2-azabicyclo[2.2.1]heptane-2-carboxylate,
 methyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,
 ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,
 2-fluoroethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

prop-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

but-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

8-(8-butanoyl-8-azabicyclo[3.2.1]oct-3-yl)-2,8-diazaspiro[4.5]decan-3-one,

ethyl 3-(1-methyl-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(1-ethyl-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(3-oxo-1-propyl-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(1-benzyl-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 2-fluoro-3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(6-fluoro-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(2-ethyl-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(2-hydroxy-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-(3-oxo-2-propyl-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-[3-oxo-2-(propan-2-yl)-2,8-diazaspiro[4.5]dec-8-yl]-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-[2-(2-methylpropyl)-3-oxo-2,8-diazaspiro[4.5]dec-8-yl]-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-[2-(cyclopropylmethyl)-3-oxo-2,8-diazaspiro[4.5]dec-8-yl]-8-azabicyclo[3.2.1]octane-8-carboxylate,

ethyl 3-[2-(2-methoxyethyl)-3-oxo-2,8-diazaspiro[4.5]dec-8-yl]-8-azabicyclo[3.2.1]octane-8-carboxylate,

(1,1-²H₂)ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

(2,2,2-²H₃)ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

(²H₅)ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate,

S-methyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carbothioate,

S-ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carbothioate,

ethyl 5-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-2-azabicyclo[2.2.2]octane-2-carboxylate,

ethyl 8-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-3-azabicyclo[3.2.1]octane-3-carboxylate,

ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-9-azabicyclo[3.3.1]nonane-9-carboxylate,

prop-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-9-azabicyclo[3.3.1]nonane-9-carboxylate,

but-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-9-azabicyclo[3.3.1]nonane-9-carboxylate,

methyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-6-azabicyclo[3.2.1]octane-6-carboxylate,

ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-6-azabicyclo[3.2.1]octane-6-carboxylate,

ethyl 6-(2-oxo-1-oxa-3,8-diazaspiro[4.5]dec-8-yl)-3-azabicyclo[3.2.1]octane-3-carboxylate,

and

ethyl 6-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-3-azabicyclo[3.1.1]heptane-3-carboxylate,

or a salt thereof.

9. A pharmaceutical composition comprising a compound as defined in claim 1 and a pharmaceutically acceptable excipient.
10. A compound according to claim 1, wherein R¹ is selected from H, OH, C₁₋₆ alkyl optionally substituted with 1 to 6 fluorine atoms, CH₂-aryl or CH₂-heteroaryl.

11. A compound according to claim 7 which is ethyl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate, or a salt thereof.
12. A compound according to claim 7 which is prop-2-yn-1-yl 3-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate, or a salt thereof.
13. A compound according to claim 7 which is ethyl (3-*endo*)-3-(2-hydroxy-3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-8-azabicyclo[3.2.1]octane-8-carboxylate, or a salt thereof.
14. A compound according to claim 7 which is ethyl 5-(3-oxo-2,8-diazaspiro[4.5]dec-8-yl)-2-azabicyclo[2.2.2]octane-2-carboxylate, or a salt thereof.
15. A compound according to claim 7 which is ethyl 6-(2-oxo-1-oxa-3,8-diazaspiro[4.5]dec-8-yl)-3-azabicyclo[3.2.1]octane-3-carboxylate, or a salt thereof.