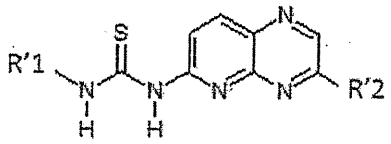
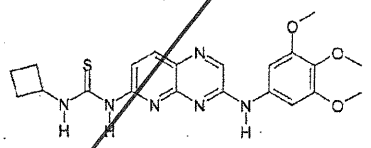
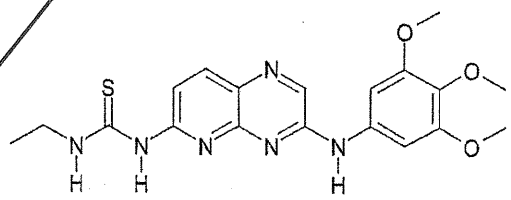
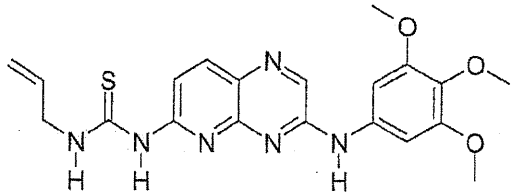
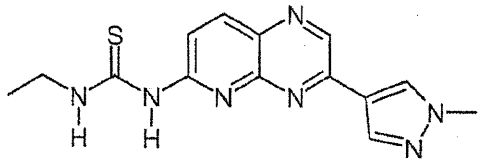
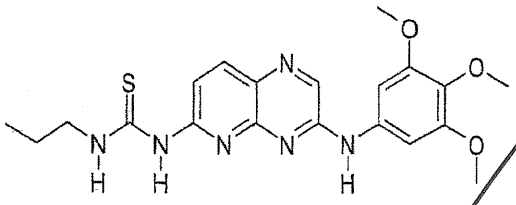
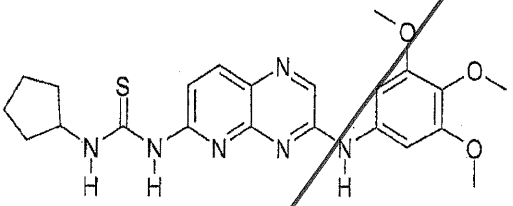
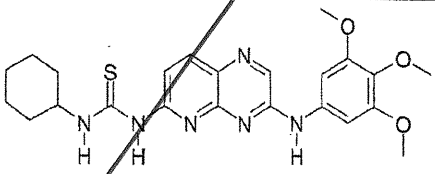
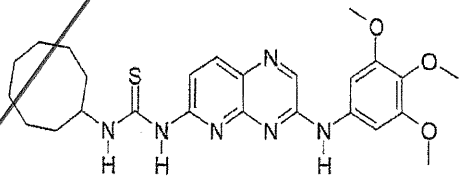
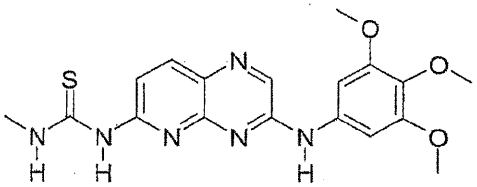
Claims

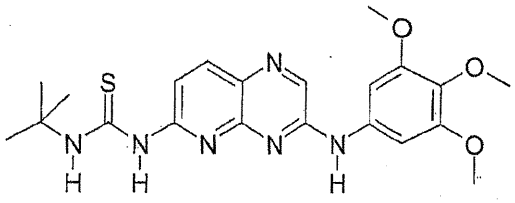
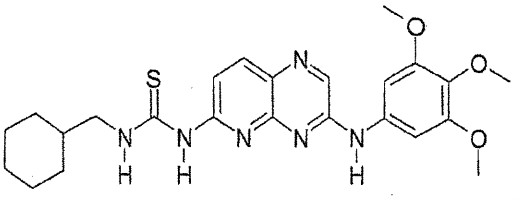
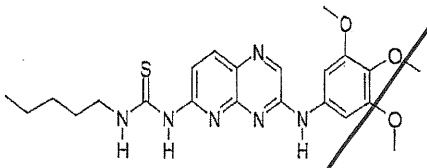
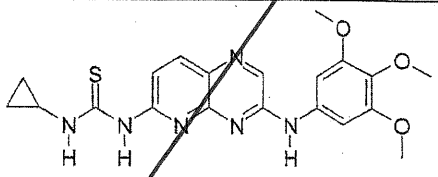
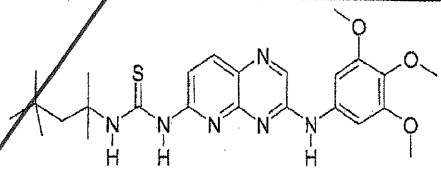
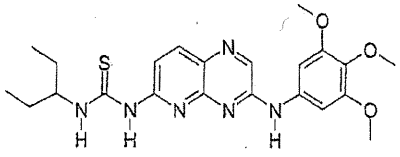
1. Pyrido[2,3-b]pyrazine derivative having the general formula:

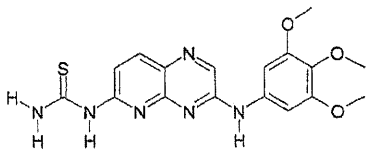
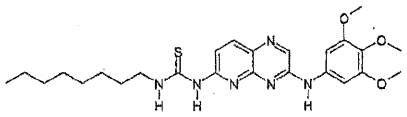


wherein R'1 is selected from hydrogen, methyl, ethyl, propyl, 2-propenyl (allyl), t-butyl, n-pentyl, 1-ethylpropyl, 1,1,3,3-tetramethylbutyl, n-octyl, methylcyclohexyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl and cyclooctyl, and R'2 is selected from 1-methyl pyrazol-4-yl and 3,4,5-trimethoxyphenylamino, and wherein R'1 and R'2 are selected such that the Pyrido[2,3-b]pyrazine derivative is selected from the group consisting of:

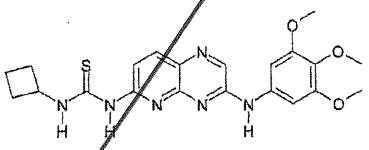
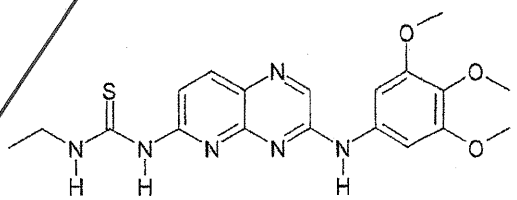
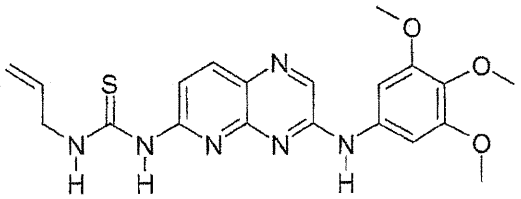
Compound	Structure	Name
755		1-Cyclobutyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
160		1-Ethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
693		1-Allyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

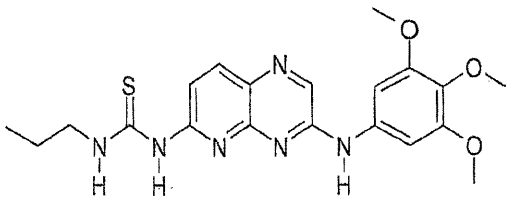
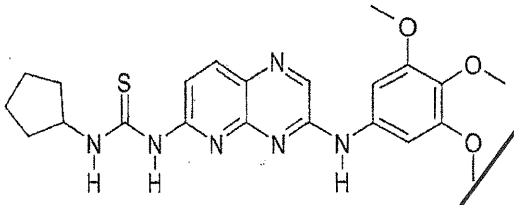
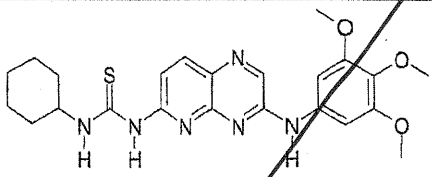
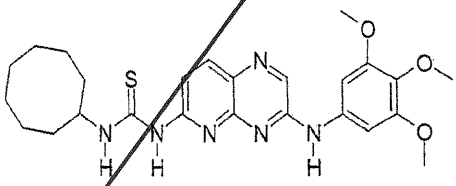
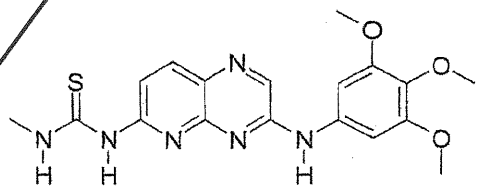
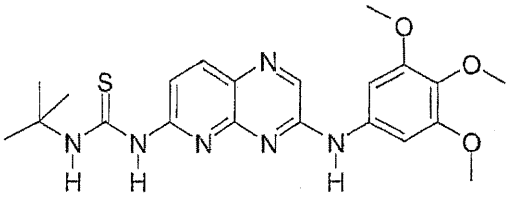
113		1-Ethyl-3-[3-(1-methyl-1H-pyrazol-4-yl)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
501		1-Propyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
509		1-Cyclopentyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
690		1-Cyclohexyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
691		1-Cyclooctyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
692		1-Methyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

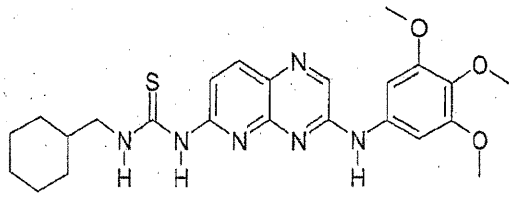
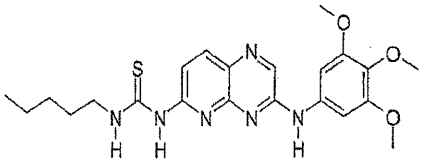
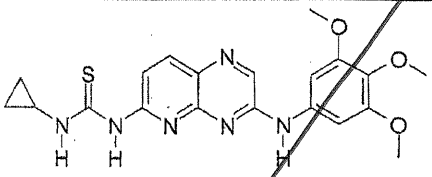
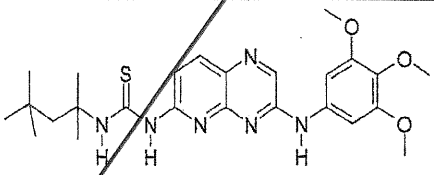
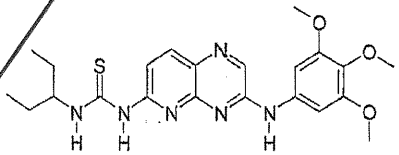
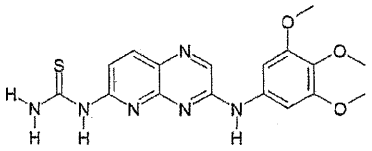
694		1-tert-Butyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
696		1-Cyclohexylmethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
702		1-Pentyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
707		1-Cyclopropyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
712		1-(1,1,3,3-Tetramethyl-butyl)-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
714		1-(1-Ethyl-propyl)-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

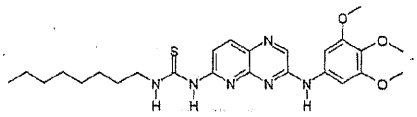
762		[3-(3,4,5-Trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
763		1-Octyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

2. The Pyrido[2,3-b]pyrazine derivative of claim 1, in which R'2 is 3,4,5-trimethoxyphenylamino, and the Pyrido[2,3-b]pyrazine derivative is selected from the group consisting of:

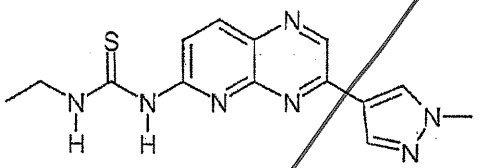
Compound	Structure	Name
755		1-Cyclobutyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
160		1-Ethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
693		1-Allyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

501		1-Propyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
509		1-Cyclopentyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
690		1-Cyclohexyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
691		1-Cyclooctyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
692		1-Methyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
694		1-tert-Butyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

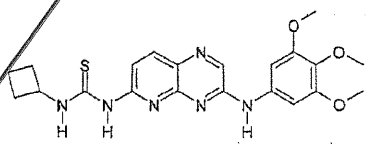
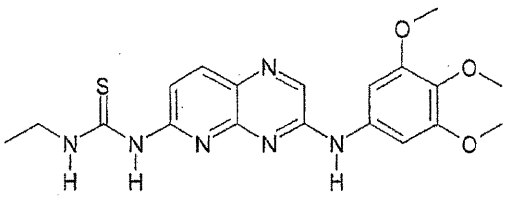
696		1-Cyclohexylmethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
702		1-Pentyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
707		1-Cyclopropyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
712		1-(1,1,3,3-Tetramethyl-butyl)-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
714		1-(1-Ethyl-propyl)-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
762		[3-(3,4,5-Trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

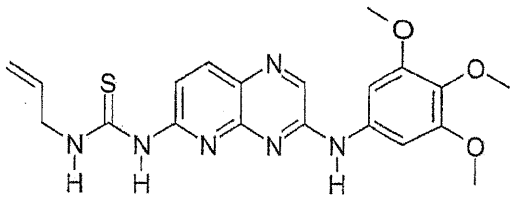
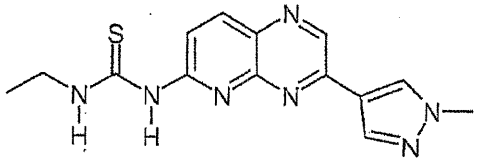
763		1-Octyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

3. The Pyrido[2,3-b]pyrazine derivative of claim 1, in which R'2 is selected from 1-methyl pyrazol-4-yl, and the Pyrido[2,3-b]pyrazine derivative is selected from:

Compound	Structure	Name
113		1-Ethyl-3-[3-(1-methyl-1H-pyrazol-4-yl)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

4. The Pyrido[2,3-b]pyrazine derivative of claim 1, selected from the group consisting of:

Compound	Structure	Name
755		1-Cyclobutyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
160		1-Ethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

693		1-Allyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
113		1-Ethyl-3-[3-(1-methyl-1H-pyrazol-4-yl)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

5. Process of manufacturing a pyrido[2,3-b]pyrazine derivative as claimed in any of claims 1 to 4.

6. Pharmaceutical composition comprising a pharmaceutically active amount of at least one compound as claimed in any of claims 1 to 4.

7. Pharmaceutical composition as claimed in claim 6, where the at least one compound is present in a unit dose of from 0.001 mg to 100 mg per kg of body weight of the patient.

8. Pharmaceutical composition as claimed in any of claims 6 to 7, where the composition additionally comprises at least one pharmaceutically acceptable carrier and/or auxiliary.

9. Pharmaceutical composition as claimed in any of claims 6 to 8, where the composition additionally comprises at least one further pharmacologically active substance.

10. Pharmaceutical composition as claimed in claim 9, where the further pharmacologically active substance is selected from the group consisting of: "DNA topoisomerase I and/or II inhibitors, DNA intercalators, alkylating agents, microtubuli destabi-

lizers, hormone and/or growth factor receptor agonists and/or antagonists, antibodies against growth factors and their receptors, kinase inhibitors, antimetabolites".

11. Pharmaceutical composition as claimed in claim 10, where the further pharmacologically active substance is selected from the group consisting of: "asparaginase, bleomycin, carboplatin, carmustine, chlorambucil, cisplatin, colaspase, cyclophosphamide, cytarabine, dacarbazine, dactinomycin, daunorubicin, doxorubicin (adriamycin), epirubicin, etoposide, 5-fluorouracil, hexamethylmelamine, hydroxyurea, ifosfamide, irinotecan, leucovorin, lomustine mechlorethamine, 6-mercaptopurine, mesna, methotrexate, mitomycin C, mitoxantrone, prednisolone, prednisone, procarbazine, raloxifen, streptozocin, tamoxifen, thioguanine, topotecan, vinblastine, vincristine, vindesine, aminoglutethimide, L-asparaginase, azathioprine, 5-azacytidine cladribine, busulfan, diethylstilbestrol, 2' 2'-difluorodeoxycytidine, docetaxel, erythrohydroxynonyladenine, ethynylestradiol, 5-fluorodeoxyuridine, 5-fluorodeoxyuridine monophosphate, fludarabine phosphate, fluoxymesterone, flutamide, hydroxyprogesterone caproate, idarubicin, interferon, medroxyprogesterone acetate, megestrol acetate, melphalan, mitotane, paclitaxel, oxaliplatin, pentostatin, N-phosphonoacetyl-L-aspartate (PALA), plicamycin, semustine, teniposide, testosterone propionate, thiotepa, trimethylmelamine, uridine, vinorelbine, epothilone, gemcitabine, taxotere, BCNU, CCNU, DTIC, 5-fluorouarcil, herceptin, avastin, erbitux, sorafenib, gleevec, iressa, tarceva, rapamycin, actinomycin D, sunitinib (sutent)".

12. Pyrido[2,3-b]pyrazine derivative as claimed in any of claims 1 to 4, or pharmaceutical composition as claimed in any of claims 6 to 11 for use as a medicament.

13. Use of a pyrido[2,3-b]pyrazine derivative as claimed in any of claims 1 to 4 or a pharmaceutical composition as claimed in any of claims 6 to 11 for the manufacture of a medicament for the treatment or prophylaxis of physiological and/or pathological conditions in mammals that are mediated by one or more signal transduction pathways selected from the group consisting of: "ras-Raf-Mek-Erk signal transduction pathway, PI3K-Akt signal transduction pathway and/or SAPK signal transduction pathway".

14. The use as claimed in claim 13, where the physiological and/or pathophysiological conditions are selected from the group consisting of: "malignant tumors, benign tumors, inflammatory disorders, inflammations, pain, rheumatic disorders, arthritic disorders, HIV infections, neurological or neurodegenerative disorders, rheumatism, arthritis, AIDS, ARC (AIDS related complex), Kaposi's sarcoma, tumors originating in the brain and/or nervous system and/or meninges, dementia, Alzheimer's disease, hyperproliferative disorders, psoriasis, endometriosis, scar formation, benign prostate hyperplasia (BPH), disorders of the immune system, autoimmune disorders, immune deficiency disorders, colon tumor, stomach tumor, intestine tumor, lung tumor, pancreas tumor, ovarian tumor, prostate tumor, leukemia, melanoma, liver tumor, kidney tumor, head tumor, throat tumor, glioma, breast tumor, uterine cancer, endometrial cancer, cervical cancer, brain tumor, adenocanthoma, bladder cancer, colorectal tumor, esophageal cancer, gynecological tumor, ovarian tumor, thyroid cancer, lymphoma, chronic leukemia, acute leukemia, restenosis, diabetes, diabetic nephropathy, fibrotic disorders, cystic fibrosis, malignant nephrosclerosis, thrombotic microangiopathy syndrome, organ transplant rejection, glomerulopathies, disorders of the metabolism, solid tumors, rheumatic arthritis, diabetic retinopathy, asthma, allergies, allergic disorders, chronic obstructive pulmonary disorders, inflammatory bowel disorder, fibrosis, atherosclerosis, cardiac disorders, cardiovascular disorders, disorders of the heart muscle, vascular disorders, angiogenetic disorders, kidney disorders, rhinitis, Grave's disease, focal ischemia, heart failure, ischemia, cardiac hypertrophy, kidney failure, cardiac myocyte dysfunction, high blood pressure, vascular constriction, stroke, anaphylactic shock, blood platelet agglutination, skeletal muscular atrophy, obesity, excess weight, glucose homeostasis, congestive heart failure, angina, heart attack, myocardial infarction, hyperglycemia, hypoglycemia, hypertension".

15. The use as claimed in any of claims 13 to 14, where the medicament comprises at least one further pharmacologically active substance.

16. The use as claimed in any of claims 13 to 14, where the pyrido[2,3-b]pyrazine derivative is for administration before and/or during and/or after the administration of at least one further pharmacologically active substance.

17. The use as claimed in any of claims 13 to 16, where the medicament is for administration before and/or during and/or after the treatment by radiation therapy and/or surgery.

18. The use as claimed in any of claims 15 to 16, where the further pharmacologically active substance is selected from the group consisting of: "DNA topoisomerase I and/or II inhibitors, DNA intercalators, alkylating agents, microtubuli destabilizers, hormone and/or growth factor receptor agonists and/or antagonists, antibodies against growth factors and their receptors, kinase inhibitors, antimetabolites".

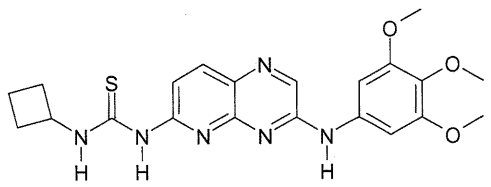
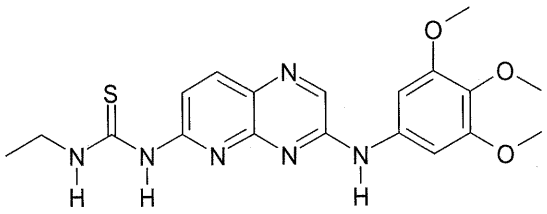
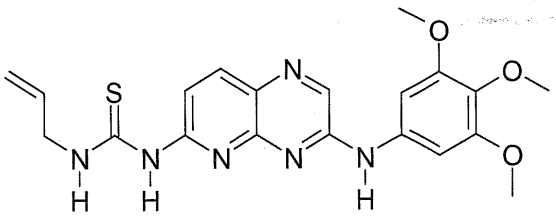
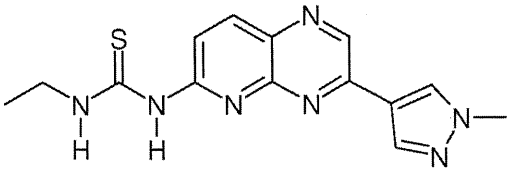
19. The use as claimed in claim 18, where the further pharmacologically active substance is selected from the group consisting of: "asparaginase, bleomycin, carboplatin, carmustine, chlorambucil, cisplatin, colaspase, cyclophosphamide, cytarabine, dacarbazine, dactinomycin, daunorubicin, doxorubicin (adriamycin), epirubicin, etoposide, 5-fluorouracil, hexamethylmelamine, hydroxyurea, ifosfamide, irinotecan, leucovorin, lomustine mechlorethamine, 6-mercaptopurine, mesna, methotrexate, mitomycin C, mitoxantrone, prednisolone, prednisone, procarbazine, raloxifen, streptozocin, tamoxifen, thioguanine, topotecan, vinblastine, vincristine, vindesine, aminoglutethimide, L-asparaginase, azathioprine, 5-azacytidine cladribine, busulfan, diethylstilbestrol, 2',2'-difluorodeoxycytidine, docetaxel, erythrohydroxynonyladenine, ethynylestradiol, 5-fluorodeoxyuridine, 5-fluorodeoxyuridine monophosphate, fludarabine phosphate, fluoxymesterone, flutamide, hydroxyprogesterone caproate, idarubicin, interferon, medroxyprogesterone acetate, megestrol acetate, melphalan, mitotane, paclitaxel, oxaliplatin, pentostatin, N-phosphonoacetyl-L-aspartate (PALA), plicamycin, semustine, teniposide, testosterone propionate, thiotepa, trimethylmelamine, uridine, vinorelbine, epothilone, gemcitabine, taxotere, BCNU, CCNU, DTIC, 5-fluorouarcil, herceptin, avastin, erbitux, sorafenib, gleevec, iressa, tarceva, rapamycin, actinomycin D, sunitinib (sutent)".

20. Kit comprising a pharmacologically active amount of at least one compound as claimed in any of claims 1 to 4 and/or at least one pharmaceutical composition as claimed in any of claims 6 to 11 and a pharmacologically active amount of at least one further pharmacologically active substance as claimed in any of claims 18-19.

21. Pyrido[2,3-b]pyrazine derivative as claimed in any of claims 1 to 4, in the form of a stereoisomer, a double bond isomer as "pure" E or Z isomer or in the form of a mixture of double bond isomers, a tautomer, a prodrug in the form of an ester, carbonate, carbamate, urea, amide, N-oxide or phosphate, or a metabolite.

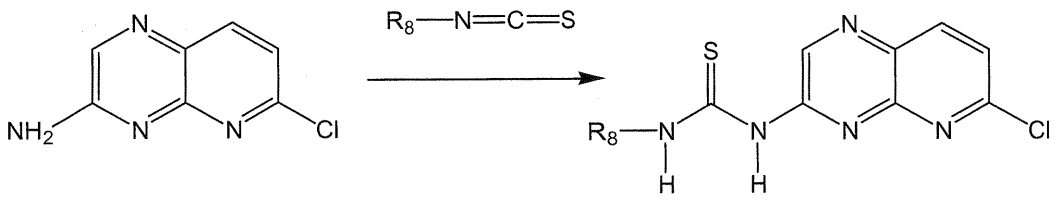
Claims

1. Pyrido[2,3-b]pyrazine derivative selected from the group consisting of:

Compound	Structure	Name
755		1-Cyclobutyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
160		1-Ethyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
693		1-Allyl-3-[3-(3,4,5-trimethoxy-phenylamino)-pyrido[2,3-b]pyrazin-6-yl]-thiourea
113		1-Ethyl-3-[3-(1-methyl-1H-pyrazol-4-yl)-pyrido[2,3-b]pyrazin-6-yl]-thiourea

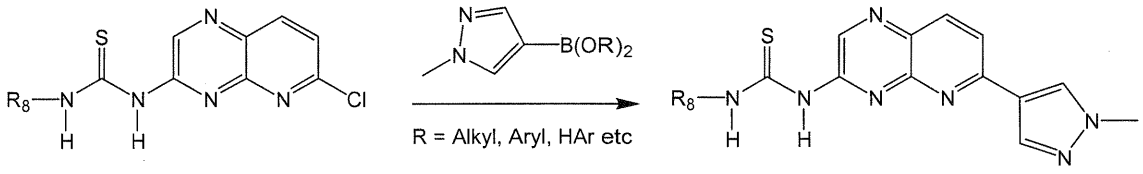
2. Process of manufacturing a pyrido[2,3-b]pyrazine derivative as claimed in claim 1, according to the following scheme:

(1)

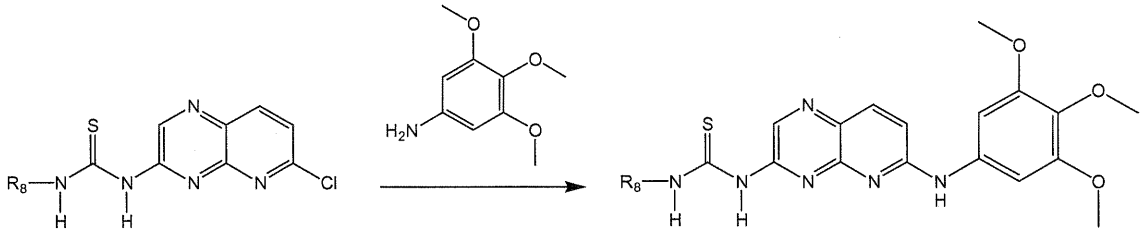


and

(2) for compound 113:



or for compounds 160, 693 and 755:



where R_8 is ethyl for compounds 113 and 160, allyl for compound 693, and cyclobutyl for compound 755.

3. Pharmaceutical composition comprising a pharmaceutically active amount of at least one compound as claimed in claim 1.

4. Pharmaceutical composition as claimed in claim 3, where the at least one compound is present in a unit dose of from 0.001 mg to 100 mg per kg of body weight of the patient.

5. Pharmaceutical composition as claimed in any of claims 3 to 4, where the composition additionally comprises at least one pharmaceutically acceptable carrier and/or auxiliary.

6. Pharmaceutical composition as claimed in any of claims 3 to 5, where the composition additionally comprises at least one further pharmacologically active substance.

7. Pharmaceutical composition as claimed in claim 6, where the further pharmacologically active substance is selected from the group consisting of: "DNA topoisomer-

ase I and/or II inhibitors, DNA intercalators, alkylating agents, microtubuli destabilizers, hormone and/or growth factor receptor agonists and/or antagonists, antibodies against growth factors and their receptors, kinase inhibitors, antimetabolites".

8. Pharmaceutical composition as claimed in claim 7, where the further pharmacologically active substance is selected from the group consisting of: "asparaginase, bleomycin, carboplatin, carmustine, chlorambucil, cisplatin, colaspase, cyclophosphamide, cytarabine, dacarbazine, dactinomycin, daunorubicin, doxorubicin (adriamycin), epirubicin, etoposide, 5-fluorouracil, hexamethylmelamine, hydroxyurea, ifosfamide, irinotecan, leucovorin, lomustine mechlorethamine, 6-mercaptopurine, mesna, methotrexate, mitomycin C, mitoxantrone, prednisolone, prednisone, procarbazine, raloxifen, streptozocin, tamoxifen, thioguanine, topotecan, vinblastine, vincristine, vindesine, aminoglutethimide, L-asparaginase, azathioprine, 5-azacytidine cladribine, busulfan, diethylstilbestrol, 2',2'-difluorodeoxycytidine, docetaxel, erythrohydroxynonyladenine, ethynylestradiol, 5-fluorodeoxyuridine, 5-fluorodeoxyuridine monophosphate, fludarabine phosphate, fluoxymesterone, flutamide, hydroxyprogesterone caproate, idarubicin, interferon, medroxyprogesterone acetate, megestrol acetate, melphalan, mitotane, paclitaxel, oxaliplatin, pentostatin, N-phosphonoacetyl-L-aspartate (PALA), plicamycin, semustine, teniposide, testosterone propionate, thiotepa, trimethylmelamine, uridine, vinorelbine, epothilone, gemcitabine, taxotere, BCNU, CCNU, DTIC, 5-fluorouarcil, herceptin, avastin, erbitux, sorafenib, gleevec, iressa, tarceva, rapamycin, actinomycin D, sunitinib (sutent)".

9. Pyrido[2,3-b]pyrazine derivative as claimed in claim 1, or pharmaceutical composition as claimed in any of claims 3 to 8 for use as a medicament.

10. Use of a pyrido[2,3-b]pyrazine derivative as claimed in claim 1 or a pharmaceutical composition as claimed in any of claims 3 to 8 for the manufacture of a medicament for the treatment or prophylaxis of physiological and/or pathological conditions in mammals that are modulated by inhibition of one or more signal transduction pathways selected from the group consisting of: "ras-Raf-Mek-Erk signal transduction pathway, PI3K-Akt signal transduction pathway and/or SAPK signal transduction

pathway".

11. The use as claimed in claim 10, where the physiological and/or pathophysiological conditions are mediated by inhibition of one or more kinases selected from the group consisting of: "PI3K, PI3Kalpha, PI3Kbeta, PI3Kgamma, PI3Kdelta, PI3K-C2alpha, PI3K-C2beta, PI3K-Vps34p".

12. The use as claimed in claim 10, where the physiological and/or pathophysiological conditions are mediated by inhibition of one or more kinases selected from the group consisting of: "Jnk, Jnk1, Jnk2, Jnk3, p38, p38alpha, p38beta, p38gamma, p38delta".

13. The use as claimed in claim 10, where the physiological and/or pathophysiological conditions are mediated by inhibition of one or more kinases selected from the group consisting of: "Erk, Erk1, Erk2".

14. The use as claimed in claim 10, where the physiological and/or pathophysiological conditions are mediated by simultaneous inhibition of one or more kinases selected from the group consisting of: "PI3K, PI3Kalpha, PI3Kbeta, PI3Kgamma, PI3Kdelta, PI3K-C2alpha, PI3K-C2beta, PI3K-Vps34p" and one or more kinases selected from the group consisting of: "Erk, Erk1, Erk2".

15. The use as claimed in claim 9, where the physiological and/or pathophysiological conditions are selected from the group consisting of: "malignant tumors, benign tumors, inflammatory disorders, inflammations, pain, rheumatic disorders, arthritic disorders, HIV infections, neurological or neurodegenerative disorders, rheumatism, arthritis, AIDS, ARC (AIDS related complex), Kaposi's sarcoma, tumors originating in the brain and/or nervous system and/or meninges, dementia, Alzheimer's disease, hyperproliferative disorders, psoriasis, endometriosis, scar formation, benign prostate hyperplasia (BPH), disorders of the immune system, autoimmune disorders, immune deficiency disorders, colon tumor, stomach tumor, intestine tumor, lung tumor, pancreas tumor, ovarian tumor, prostate tumor, leukemia, melanoma, liver tu-

mor, kidney tumor, head tumor, throat tumor, glioma, breast tumor, uterine cancer, endometrial cancer, cervical cancer, brain tumor, adenocanthoma, bladder cancer, colorectal tumor, esophageal cancer, gynecological tumor, ovarian tumor, thyroid cancer, lymphoma, chronic leukemia, acute leukemia, restenosis, diabetes, diabetic nephropathy, fibrotic disorders, cystic fibrosis, malignant nephrosclerosis, thrombotic microangiopathy syndrome, organ transplant rejection, glomerulopathies, disorders of the metabolism, solid tumors, rheumatic arthritis, diabetic retinopathy, asthma, allergies, allergic disorders, chronic obstructive pulmonary disorders, inflammatory bowel disorder, fibrosis, atherosclerosis, cardiac disorders, cardiovascular disorders, disorders of the heart muscle, vascular disorders, angiogenetic disorders, kidney disorders, rhinitis, Grave's disease, focal ischemia, heart failure, ischemia, cardiac hypertrophy, kidney failure, cardiac myocyte dysfunction, high blood pressure, vascular constriction, stroke, anaphylactic shock, blood platelet agglutination, skeletal muscular atrophy, obesity, excess weight, glucose homeostasis, congestive heart failure, angina, heart attack, myocardial infarction, hyperglycemia, hypoglycemia, hypertension".

16. The use as claimed in claim 10, where the physiological and/or pathophysiological conditions are selected from the group consisting of: "malignant tumors, inflammatory disorders, inflammations, rheumatic disorders, arthritic disorders, HIV infections, rheumatism, arthritis, AIDS, ARC (AIDS related complex), Kaposi's sarcoma, tumors originating in the brain and/or nervous system and/or meninges, dementia, Alzheimer's disease, hyperproliferative disorders, endometriosis, colon tumor, stomach tumor, intestine tumor, lung tumor, pancreas tumor, ovarian tumor, prostate tumor, leukemia, melanoma, liver tumor, kidney tumor, head tumor, throat tumor, glioma, breast tumor, uterine cancer, endometrial cancer, cervical cancer, brain tumor, adenocanthoma, bladder cancer, colorectal tumor, esophageal cancer, gynecological tumor, ovarian tumor, thyroid cancer, lymphoma, chronic leukemia, acute leukemia, diabetes, disorders of the metabolism, solid tumors, rheumatic arthritis, allergies, allergic disorders, atherosclerosis, cardiac disorders, cardiovascular disorders, angiogenetic disorders, ischemia, cardiac hypertrophy, obesity, excess weight and hypertension

17. The use as claimed in any of claims 9 to 16, where the medicament comprises at least one further pharmacologically active substance.

18. The use as claimed in any of claims 9 to 16, where the pyrido[2,3-b]pyrazine derivative is for administration before and/or during and/or after the administration of at least one further pharmacologically active substance.

19. The use as claimed in any of claims 9 to 17, where the medicament is for administration before and/or during and/or after the treatment by radiation therapy and/or surgery.

20. The use as claimed in any of claims 17 to 18, where the further pharmacologically active substance is selected from the group consisting of: "DNA topoisomerase I and/or II inhibitors, DNA intercalators, alkylating agents, microtubuli destabilizers, hormone and/or growth factor receptor agonists and/or antagonists, antibodies against growth factors and their receptors, kinase inhibitors, antimetabolites".

21. The use as claimed in claim 20, where the further pharmacologically active substance is selected from the group consisting of: "asparaginase, bleomycin, carboplatin, carmustine, chlorambucil, cisplatin, colaspase, cyclophosphamide, cytarabine, dacarbazine, dactinomycin, daunorubicin, doxorubicin (adriamycin), epirubicin, etoposide, 5-fluorouracil, hexamethylmelamine, hydroxyurea, ifosfamide, irinotecan, leucovorin, lomustine mechlorethamine, 6-mercaptopurine, mesna, methotrexate, mitomycin C, mitoxantrone, prednisolone, prednisone, procarbazine, raloxifen, streptozocin, tamoxifen, thioguanine, topotecan, vinblastine, vincristine, vindesine, aminoglutethimide, L-asparaginase, azathioprine, 5-azacytidine cladribine, busulfan, diethylstilbestrol, 2',2'-difluorodeoxycytidine, docetaxel, erythrohydroxynonyladenine, ethynylestradiol, 5-fluorodeoxyuridine, 5-fluorodeoxyuridine monophosphate, fludarabine phosphate, fluoxymesterone, flutamide, hydroxyprogesterone caproate, idarubicin, interferon, medroxyprogesterone acetate, megestrol acetate, melphalan, mitotane, paclitaxel, oxaliplatin, pentostatin, N-phosphonoacetyl-L-aspartate (PALA), plicamycin, semustine, teniposide, testosterone propionate, thiotepa, trimethylmelamine, uridine, vinorelbine, epothilone, gemcitabine, taxotere, BCNU, CCNU, DTIC, 5-fluorouarcil, herceptin, avastin, erbitux, sorafenib, gleevec, iressa, tarceva, rapamycin, actinomycin D, sunitinib (sutent)".

22. Kit comprising a pharmacologically active amount of at least one compound as claimed in claim 1 and/or at least one pharmaceutical composition as claimed in any of claims 3 to 8 and a pharmacologically active amount of at least one further pharmacologically active substance as claimed in any of claims 20-21.

23. Pyrido[2,3-b]pyrazine derivative as claimed in claim 1, in the form of a stereoisomer, a double bond isomer as "pure" E or Z isomer or in the form of a mixture of double bond isomers or a tautomer.