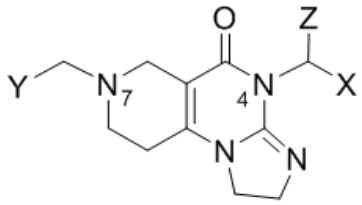
Claims

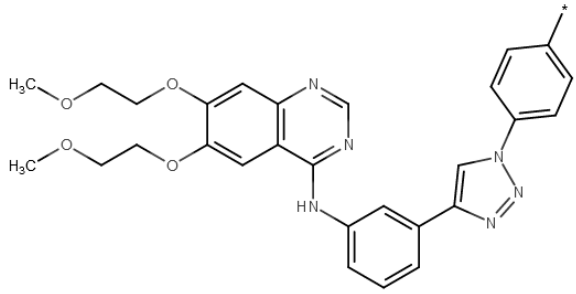
1. Compounds of formula (**I**)



(**I**)

wherein

if Y is phenyl and Z is H, then X is 3-fluorophenyl-methyl (Compound I/44), 3-(aminomethyl)phenyl (Compound I/58), 4-(aminomethyl)phenyl (Compound I/62), 3-azetidinyl (Compound I/90), 4-piperidinyl (Compound I/96), 3-azidophenyl (Compound I/102), 4-azidophenyl (Compound I/104), (4-ferrocenyl-1H-1,2,3-triazol-1-yl)phenyl (Compound I/121) or:



(Compound I/123); or

if Y is 3-fluorophenyl and Z is H, then X is 2-iodoferrocenyl (Compound I/52), 3-(aminomethyl)phenyl (Compound I/60), 4-(aminomethyl)phenyl (Compound I/63), 3-azidophenyl (Compound I/105) or 4-azidophenyl (Compound I/106); or

if Y is 3,5-difluorophenyl and Z is H, then X is 3-(aminomethyl)phenyl (Compound I/61), 4-(aminomethyl)phenyl (Compound I/64), 4-azidophenyl (Compound I/107), 3-azidophenyl (Compound I/127), (4-ferrocenyl-1H-1,2,3-triazol-1-yl)phenyl (Compound I/132); or

if Y is 4-(trifluoromethyl)phenyl and Z is H, then X is or 3-(aminomethyl)phenyl (Compound I/68); or

if Y is 3-fluoro-4-(trifluoromethyl)phenyl and Z is H, then X is 3-(aminomethyl)phenyl (Compound I/73); or

if Y is 3-fluorophenylmethyl and Z is H, then X is 2-methylphenyl (Compound I/45); or

if Y is 3-(aminomethyl)phenyl and Z is H, then X is 4-iodophenyl (Compound I/59), ferrocenyl (Compound I/67), 4-(trifluoromethyl)phenyl (Compound I/69) or ferrocenylmethyl (Compound I/70); or

if Y is ferrocenyl and Z is H, then X is 3-(aminomethyl)phenyl (Compound I/65); or

if Y is ferrocenylmethyl and Z is H, then X is 3-(aminomethyl)phenyl (Compound I/66); or

if Y is 3-(methoxycarbonylaminomethyl)phenyl and Z is H, then X is ferrocenylmethyl (Compound I/71) or ferrocenyl (Compound I/72); or

if Y is 4-aminophenyl and Z is H, then X is 3-azetidinyl (Compound I/91) or 4-piperidinyl (Compound I/93); or

if Y is 3-azetidinyl and Z is H, then X is 2-methylphenyl (Compound I/92); or

if Y is 4-piperidinyl and Z is H, then X is 2-methylphenyl (Compound I/94) or 4-fluorophenyl (Compound I/95); or

if Y is 3-pyrrolidinyl and Z is H, then X is 2-methylphenyl (Compound I/97) or 4-fluorophenyl (Compound I/98); or

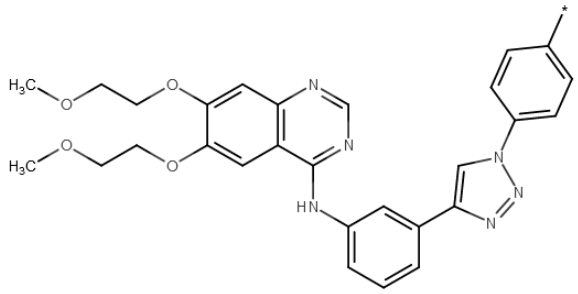
if Y is 2-pyrrolidinyl and Z is H, then X is 2-methylphenyl (Compound I/99) or 4-fluorophenyl (Compound I/100); or

if Y is 4-azidophenyl and Z is H, then X is 2-methylphenyl (Compound I/101); 3-fluorophenyl (Compound I/108), 4-fluorophenyl (Compound I/109), 4-(trifluoromethyl)phenyl (Compound I/110), 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/114), 4-iodophenyl (Compound I/115), 3,4,5-trimetoxy-phenyl (Compound I/116), 4-azidophenyl (Compound I/117), 3-azetidinyl (Compound I/118) or 4-piperidinyl (Compound I/119); or

if Y is 3-azidophenyl and Z is H, then X is 2-methylphenyl (Compound I/103), 4-(trifluoromethyl)phenyl (Compound I/111), 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/112), 4-iodophenyl (Compound I/113) or 4-chlorophenyl (Compound I/133); or

if Y is (4-ferrocenyl-1H-1,2,3-triazol-1-yl)phenyl and Z is H, then X is 2-methylphenyl (Compound I/120); or

if Y is



then X is 2-methylphenyl (Compound I/122); or

if Y is 3,5-diazidophenyl and Z is H, then X is 4-chlorophenyl (Compound I/138) or 4-(trifluromethyl)phenyl (Compound I/139); or

if Y is 3-thiocyanatophenyl and Z is H, then X is 4-chlorophenyl (Compound I/142) or 4-(trifluoromethyl)phenyl (Compound I/143); or

if Y is 3-selenocyanatophenyl and Z is H, then X is 4-chlorophenyl (Compound I/145) or 4-(trifluromethyl)phenyl (Compound I/146);

or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof.

2. The compounds according to Claim 1, wherein

if Y is 3-fluorophenyl and Z is H, then X is 4-azidophenyl (Compound I/106); or

if Y is 3,5-difluorophenyl and Z is H, then X is 4-azidophenyl (Compound I/107); or

if Y is 3-azidophenyl and Z is H, then X is 4-(trifluoromethyl)phenyl (Compound I/111) or 4-chlorophenyl (Compound I/133); or

if Y is 3,5-diazidophenyl and Z is H, then X is 4-chlorophenyl (Compound I/138) or 4-(trifluromethyl)phenyl (Compound I/139);

or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof.

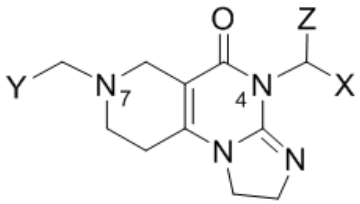
3. The compounds according to Claim 1, wherein

if Y is 3,5-difluorophenyl and Z is H, then X is 4-azidophenyl (Compound I/107); or

if Y is 3-azidophenyl and Z is H, then X is 4-(trifluoromethyl)phenyl (Compound I/111) or 4-chlorophenyl (Compound I/133);

or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof.

4. The compounds of formula (**I**)



(**I**)

wherein

if Y is phenyl and Z is H, then X is 4-fluorophenyl (Compound I/5), 3-fluorophenyl (Compound I/8), 3,4,5-trifluorophenyl (Compound I/9), 2,3,4-trifluorophenyl (Compound I/29), 2-fluoro-4-nitrophenyl (Compound I/48) or 3-aminophenyl (Compound I/75); or

if Y is 3-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/31), 4-iodophenyl (Compound I/46), 2-fluoro-4-nitrophenyl (Compound I/49), 2-methylphenyl (Compound I/53) or 4-aminophenyl (Compound I/84); or

if Y is 3,5-difluorophenyl and Z is H, then X is 4-fluorophenyl (Compound I/7), 4-(trifluoromethyl)phenyl (Compound I/30), 4-iodophenyl (Compound I/38), 4-bromophenyl (Compound I/39), 2-fluoro-4-nitrophenyl (Compound I/50), 4-chlorophenyl (Compound I/124) or 3-aminophenyl (Compound I/126) or 2-methylphenyl (Compound I/37); or

if Y is 2-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/26) or 4-iodophenyl (Compound I/54); or

if Y is 4-(trifluoromethyl)phenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/27); or

if Y is 4-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/28) or 4-iodophenyl (Compound I/55); or

if Y is 4-aminophenyl and Z is H, then X is 4-(trifluoromethyl)phenyl (Compound I/81), 4-fluorophenyl (Compound I/86), 4-iodophenyl (Compound I/87) or 3,4,5-trimethoxyphenyl (Compound I/89); or

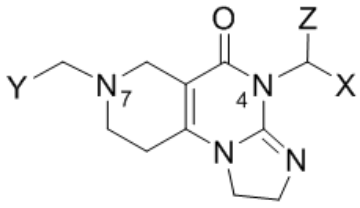
if Y is 3,5-difluorophenyl and Z is hydroxymethyl, then X is 4-chlorophenyl (racemic) (Compound I/128), 4-fluorophenyl (R-enantiomer) (Compound I/129 (R)) or 4-fluorophenyl (S-enantiomer) (Compound I/129 (S));

if Y is 3,5-dicyanophenyl and Z is H, then X is 4-chlorophenyl (Compound I/136) or 4-(trifluoromethyl)phenyl (Compound I/137); or

if Y is phenyl and Z is H, then X is 2-iodophenyl (Compound I/11);

or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof for use as a medicament.

5. Use of the compounds of formula (**I**)



(**I**)

wherein

if Y is phenyl and Z is H, then X is 4-fluorophenyl (Compound I/5), 3-fluorophenyl (Compound I/8), 3,4,5-trifluorophenyl (Compound I/9), 2,3,4-trifluorophenyl (Compound I/29), 2-fluoro-4-nitrophenyl (Compound I/48) or 3-aminophenyl (Compound I/75); or

if Y is 3-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/31), 4-iodophenyl (Compound I/46), 2-fluoro-4-nitrophenyl (Compound I/49), 2-methylphenyl (Compound I/53) or 4-aminophenyl (Compound I/84); or

if Y is 3,5-difluorophenyl and Z is H, then X is 4-fluorophenyl (Compound I/7), 4-(trifluoromethyl)phenyl (Compound I/30), 4-iodophenyl (Compound I/38), 4-bromophenyl (Compound I/39), 2-fluoro-4-nitrophenyl (Compound I/50), 4-chlorophenyl (Compound I/124) or 3-aminophenyl (Compound I/126) or 2-methylphenyl (Compound I/37); or

if Y is 2-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/26) or 4-iodophenyl (Compound I/54); or

if Y is 4-(trifluoromethyl)phenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/27); or

if Y is 4-fluorophenyl and Z is H, then X is 3-fluoro-4-(trifluoromethyl)phenyl (Compound I/28) or 4-iodophenyl (Compound I/55); or

if Y is 4-aminophenyl and Z is H, then X is 4-(trifluoromethyl)phenyl (Compound I/81), 4-fluorophenyl (Compound I/86), 4-iodophenyl (Compound I/87) or 3,4,5-trimethoxyphenyl (Compound I/89); or

if Y is 3,5-difluorophenyl and Z is hydroxymethyl, then X is 4-chlorophenyl (racemic) (Compound I/128), 4-fluorophenyl (R-enantiomer) (Compound I/129 (R)) or 4-fluorophenyl (S-enantiomer) (Compound I/129 (S));

if Y is 3,5-dicyanophenyl and Z is H, then X is 4-chlorophenyl (Compound I/136) or 4-(trifluoromethyl)phenyl (Compound I/137); or

if Y is phenyl and Z is H, then X is 2-iodophenyl (Compound I/11);

or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment of cancer.

6. The use according to Claim 5, wherein the cancer is selected form the group consisting of prostate carcinoma, pancreatic cancer, lung carcinoma, breast cancer, glioma, cancers of head and neck, colon cancer, skin cancer.

7. The use according to Claim 5 or 6, wherein

if Y is 3-fluorophenyl and Z is H, then X is 2-methylphenyl (Compound I/53); or
if Y is 3,5-difluorophenyl and Z is H, then X is 4-fluorophenyl (Compound I/7), 4-(trifluoromethyl)phenyl (Compound I/30), 4-bromophenyl (Compound I/39), 4-chlorophenyl (Compound I/124) or 2-methylphenyl (Compound I/37); or
if Y is 3,5-dicyanophenyl and Z is H, then X is 4-chlorophenyl (Compound I/136) or 4-(trifluoromethyl)phenyl (Compound I/137); or
if Y is phenyl and Z is H, then X is 2-iodophenyl (Compound I/11);
or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof.

8. The use according to Claim 5 or 6, wherein
if Y is 3,5-difluorophenyl and Z is H, then X is 4-fluorophenyl (Compound I/7), 4-(trifluoromethyl)phenyl (Compound I/30) or 4-chlorophenyl (Compound I/124);
or a stereoisomer, enantiomer, mixture of enantiomers, mixture of diastereomers or a pharmaceutically acceptable salt thereof.

9. The compounds according to any one of Claims 1-4 for use as a medicament.

10. Use of the compounds according to any one of Claims 1-4 in the manufacture of a medicament for the treatment of cancer.

11. The use according to Claim 10, wherein the cancer is selected form the group consisting of prostate carcinoma, pancreatic cancer, lung carcinoma, breast cancer, glioma, cancers of head and neck, colon cancer, skin cancer.