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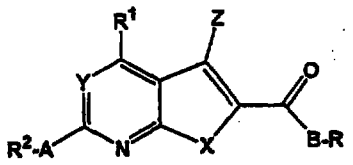
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(54) Title: BICYCLIC HETEROAROMATIC COMPOUNDS USEFUL AS LH AGONISTS

(57) Abstract

The invention relates to a bicyclic heteroaromatic derivative compound according to general formula (I), or a pharmaceutically acceptable salt thereof, wherein R^1 is NR^5R^6, OR^5, SR^5 or R^7; R^5 and R^6 are independently selected from H, (1–8C)alkyl, (2–8C)alkenyl, (2–8C)alkynyl, (3–8C)cycloalkyl, (2–7C)heterocycloalkyl, alkyl(1–8C)carbonyl, (6–14C)arylcarbonyl, (6–14C)aryl or (4–13C)heteroaryl, or R^5 and R^6 together are joined in a (2–7C)heterocycloalkyl ring; R^7 is (3–8C)cycloalkyl, (2–7C)heterocycloalkyl, (6–14C)aryl or (4–13C)heteroaryl, R^2 is (1–8C)alkyl, (2–8C)alkenyl, (2–8C)alkynyl, or (6–14C)aryl or (4–13C)heteroaryl, both optionally substituted with one or more substituents selected from (1–8C)alkyl, (1–8C)alkylthio, (1–8C)(di)alkylamino, (1–8C)alkoxy, (2–8C)alkenyl, or (2–8C)alkynyl; R^3 is (1–8C)alkyl, (2–8C)alkenyl, (2–8C)alkynyl, (3–8C)cycloalkyl, (2–7C)heterocycloalkyl, or (6–14C)aryl or (4–13C)heteroaryl, both optionally substituted with one or more substituents selected from (1–8C)alkyl, (1–8C)(di)alkylamino or (1–8C)alkoxy; X is S, O or $N(R^4)$; R^4 is H, (1–8C)alkyl, (1–8C)alkylcarbonyl, (6–14C)arylcarbonyl or (6–14C)aryl(1–8C)alkyl; Y is CH or N; Z is NH_2 or OH; A is S, N(H), $N(R^9)$, O or a bond; R^9 can be selected from the same groups as described for R^2 and B is N(H), O or a bond. The compounds of the invention have LH receptor activating activity and can be used in fertility regulating therapies.



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