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(71) Applicant *(for all designated States except US)*: **AKZO NOBEL N.V.** [NL/NL]; Velperweg 76, NL-6824 BM Arnhem (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **HANSSEN, Robert, Gerard, Jules, Marie** [NL/NL]; NV ORGANON, P.O.Box 20, NL-5340 BH Oss (NL). **TIMMERS, Cornelis, Marius** [NL/NL]; NV ORGANON, P.O. Box 20, NL-5340 BH Oss (NL). **KELDER, Jan** [NL/NL]; NV ORGANON, P.O.BOX 20, NL-5340 BH OSS (NL).

(74) Agent: **P.M.G.F. VAN WEZENBEEK**; P.O.BOX 20, NL-5340 BH Oss (NL).

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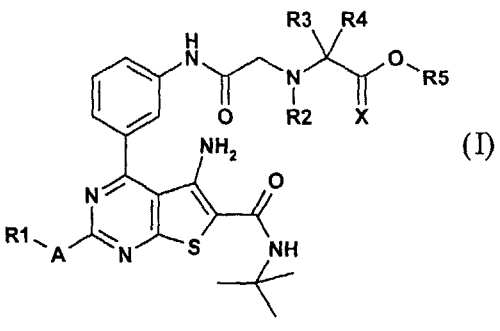
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(54) Title: GLYCINE-SUBSTITUTED THIENO [2,3-d]PYRIMIDINES WITH COMBINED LH AND FSH AGONISTIC ACTIVITY



(I)

(57) Abstract: The present invention resides in glycine substituted thieno[2,3-d]pyrimidine derivatives according to general Formula I, (I) or a phamaceutically acceptable salt thereof, wherein X is 0 or H,H A is S, NH, N(R^6), 0 or a bond; R^1 is (1-4C)alkyl, (2-4C)alkenyl, phenyl or (2-5C)heteroaryl, the phenyl or heteroaryl ring optionally being substituted with one or more of the group of substituents: hydroxy, halogen, nitro, trifluoromethyl, cyano, amino or (1-4C)(di)alkylamino and R^2 is H, (1-4C)alkyl, (1-4C)alkoxy(2-4C)alkyl or hydroxy(2-4C)alkyl; R^3 and R^4 can be independently selected from H and hydroxy (1-4C)alkyl; R^5 is H or (1-4C)alkyl. R^6 can be selected from the same groups as described for R^1. The compounds of the invention have LH as well as FSH receptor activating activity and can be used in fertility regulating therapies.