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(54) Title: PIPERAZINE DERIVATIVES AND PROCESS FOR THE PREPARATION THEREOF

(57) Abstract

The present invention relates to novel compound having strong antitumor activities of general formula (I), wherein R₁ and R₂ are independently hydrogen, substituted or unsubstituted C₁-C₈ alkyl, substituted or unsubstituted C₃-C₆ cycloalkyl, substituted or unsubstituted C₂-C₈ unsaturated alkyl, ketone, substituted or unsubstituted aryl, substituted or unsubstituted C₁-C₄ alkoxy, substituted or unsubstituted arylhydroxy, substituted or unsubstituted amino, C₁-C₄ lower ester, C₁-C₄ lower thioester, thiol, substituted or unsubstituted carboxyl, epoxy, substituted or unsubstituted C₁-C₄ lower thioalkoxy; or R₁ and R₂ are fused to form C₃-C₄ saturated or unsaturated chain; R₃, R₄, R₅, R₆ and R₇ are independently hydrogen, halogen, hydroxy, nitro, C₁-C₄ lower ester, C₁-C₄ lower alkyl, C₁-C₄ lower thioalkyl, substituted or unsubstituted C₃-C₆ cycloalkyl, C₁-C₄ lower alkoxy, C₁-C₄ lower thioalkoxy, substituted or unsubstituted aryl, substituted or unsubstituted lower arylalkoxy, substituted or unsubstituted lower alkylamino, or lower alkyl substituted or unsubstituted carbamate; or among R₃, R₄, R₅, R₆ and R₇, two adjacent groups are bonded with each other to form 1,2-phenylene or 2,3-naphthylene; X is oxygen, sulfur, or substituted or unsubstituted imino; Y is bonded at the 3-position or 4-position of the aromatic ring part wherein Y is oxygen or -NR₈- (wherein, R₈ is the same with the above-mentioned R₃); Z is hydroxy, C₁-C₄ lower alkoxy, C₁-C₄ lower thioalkoxy, substituted or unsubstituted aryloxy, C₁-C₄ lower alkylamino, substituted or unsubstituted cycloamino containing 1-5 nitrogen atoms; A is nitrogen or -CH-; its pharmaceutically acceptable acid addition salts and process for the preparation thereof.

