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(54) Title: HETEROCYCLIC SIK INHIBITORS

(57) Abstract: A compound of formula (I) having the structure: or a pharmaceutically acceptable salt thereof as SIK inhibitor, wherein A₁ and A₂ are independently O or S; X is selected from CH₂, CD₂, NR₃, O, and S, where R₃ is selected from hydrogen, C₁-C₄ linear or branched chain alkyl, halo(C₁-C₄)linear or branched chain alkyl, and hydroxyl(C₁-C₄)linear or branched chain alkyl; Y and Z are selected from C and N, where when Y is C, then Z is N, and when Y is N, then Z is C; R₁ and R₂ are independently selected from hydrogen, deuterium, C₁-C₄ linear or branched chain alkyl, etc.; or a C₁-C₂ alkyl substituted with a C₃-C₅ cycloalkyl ring; or taken together to form a C₃-C₆ cycloalkyl ring; or where X is CH₂ or CD₂, then R₁ and R₂ are independently selected from hydrogen, deuterium, halogen, hydroxyl, C₁-C₄ linear or branched chain alkyl, etc.; R₄ is selected from hydrogen, deuterium, cyano, halogen, (C₁-C₃) alkoxy, etc.; R₅ is selected from hydrogen, deuterium, halogen, C₁-C₃ alkoxy, amino, (C₁-C₄ linear or branched chain alkyl)amino, etc.; R₆ is selected from hydrogen, deuterium, halogen, CO₂R₇ where R₇ is selected from H and C₁-C₄ linear or branched chain alkyl, etc.; R₈ is selected from hydrogen, deuterium, and C₁-C₃ linear or branched chain alkyl; R₉ is selected from C₁-C₃ linear or branched chain alkyl, and a halo(C₁-C₃)linear or branched chain alkyl; and, n and m are independently selected from 0, 1 and 2. The application also relates to pharmaceutical compositions thereof and therapeutic methods of use therewith.

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