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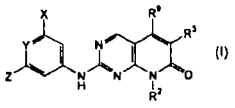


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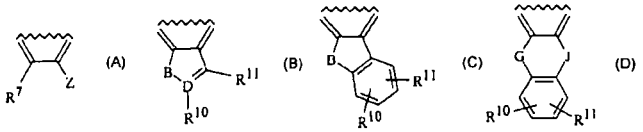


*ACTION*

(54) Title: 5-ALKYLPYRIDO[2,3-D]PYRIMIDINES TYROSINE KINASE INHIBITORS



(I)



(A) (B) (C) (D)

(57) Abstract: Disclosed are compounds of the formula (I) wherein: $R^2$ is hydrogen, alkyl, or cycloalkyl; $R^3$ is hydrogen, lower alkyl, lower alkoxy, halogen, trifluoromethyl, lower alkynyl, lower alkenyl, nitrile, nitro, $-COR^4$, $-CO_2R^4$, $-CONR^4R^5$, $-CONR^4OR^5$, $-SO_2NR^4R^5$, $-SO_2NR^4R^5$, $-SO_2R^4$, $-SO_3R^4$, formula (II), or $-NR^4R^5$; Y is N or $CR^7$; $R^9$ is lower alkyl, haloalkyl, or aryl; X and Z are independently hydrogen, halogen, lower alkyl, lower alkoxy, trifluoromethyl, hydroxy, nitrile, nitro, $-NR^4R^5$, $-N(O)R^4R^5$, $-NR^4R^5R^6W$, $-SR^4$, $-C(O)R^4$, $-CO_2R^4$, $-CONR^4R^5$, $-SO_2NR^4R^5$, $-SO_2R^4$, $-SO_3R^4$, $P(O)(OR^4)(OR^5)$, $-T(CH_2)_mQR^4$, $-C(O)T(CH_2)_mQR^4$, or $-NR^4C(O)T(CH_2)_mQR^5$; m is 1 to 6. These compounds are useful for treating cell proliferative disorders, such as cancer, atherosclerosis, and restenosis. These compounds are potent inhibitors of cyclin-dependent kinases (cdks) and growth factor-mediated kinases.

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