

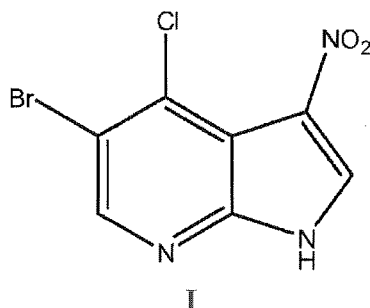
pathways, which eventually causes cell-cycle arrest in the G1, S and G2/M phases, activation of DNA repair, and apoptotic cell death. (Bartek, Jiri, et al., "CHK2 Kinase - A Busy Messenger." *Nature Reviews Molecular Cell Biology*. Vol. 2(12) (2001) 877-886). Cancer cells often lack one or more genome -integrity checkpoints, so inhibition of CHK2 could make tumor cells selectively more sensitive to anti-cancer therapies, such as γ -radiation or DNA-damaging drugs.

[0010] Normal cells would still activate other checkpoints and recover, while cancer cells deprived of checkpoints would be more likely to die. It has been demonstrated that a peptide-based inhibitor of CHK2 abrogated the G2 checkpoint and sensitized p53-defective cancer cells to DNA damaging agents. (Pommier, Yves, et al., "Targeting Chk2 Kinase: Molecular Interaction Maps and Therapeutic Rationale." *Current Pharmaceutical Design*. Vol. 11, No. 22 (2005) 2855-2872).

[0011] CHK1 and/or CHK2 inhibitors are known, see for example, International Publication WO 2009/089352, WO2009/089359 and WO2009/140320.

[0012] SUMMARY

[0013] In one example aspect, there is provided 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I:

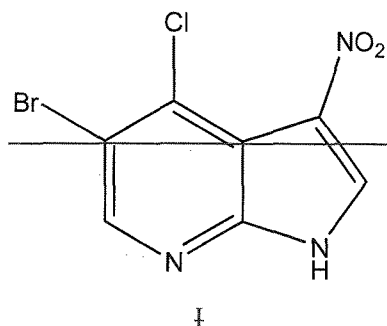


and stereoisomers, tautomers and pharmaceutically acceptable salts thereof. 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I can be useful as an intermediate compound in a process for preparing compounds which can be used as Chk1 inhibitors.

[0013a] In one aspect, there is provided a process for preparing 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I:

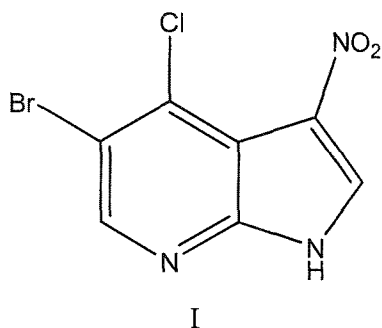
What is claimed is:

~~1. 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I:~~

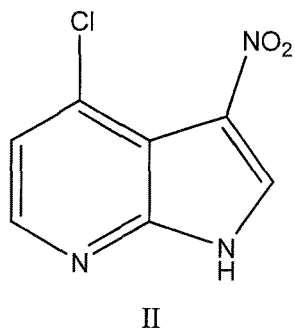


~~and stereoisomers, tautomers and pharmaceutically acceptable salts thereof.~~

21. A process for preparing 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I:



comprising the step of subjecting 4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula II to a bromination:



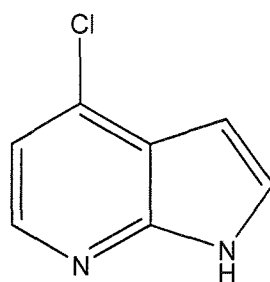
to yield 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I.

32. The process of claim 21, wherein the bromination is performed using a solvent chosen among organic acids.

43. The process of claim 32, wherein the organic acid is acetic acid.
54. The process of any one of claims 21 to 43, wherein bromination is performed by a brominating agent chosen from bromine, pyridinium tribromide, pyridinium dichlorobromate, 1,3-dibromo-5,5-dimethylhydantoin, tetrabromocyclohexadienone or N-Bromosuccinimide (NBS).

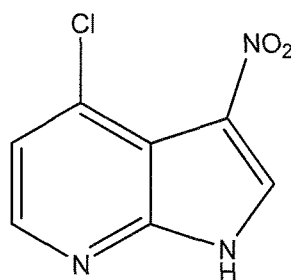
65. The process of claim 54, wherein the brominating agent is N-Bromosuccinimide (NBS).

76. The process of any one of claims 21 to 65, comprising the steps of:
 (a) subjecting 4-chloro-1H-pyrrolo[2,3-b]pyridine of formula III:



III

to a nitration to yield 4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula II:



II

- (b) subjecting 4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula II to a bromination to yield 5-bromo-4-chloro-3-nitro-1H-pyrrolo[2,3-b]pyridine of Formula I.

87. The process of claim 76, wherein nitration is ~~performed~~performed by using a nitrating agent chosen from nitric acid.
98. The process of claim 87, wherein nitration is performed under acidic conditions.
109. The process of claim 98, wherein nitration is ~~performed~~performed in the presence of sulfuric acid.