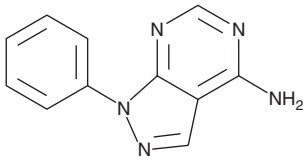
PRODUCT INFORMATION

PP3

Item No. 15595

CAS Registry No.: 5334-30-5
Formal Name: 1-phenyl-1H-pyrazolo[3,4-d] pyrimidin-4-amine
Synonym: NSC 1401
MF: $C_{11}H_9N_5$
FW: 211.2
Purity: ≥98%
UV/Vis.: λ_{max}: 239, 290 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PP3 is supplied as a crystalline solid. A stock solution may be made by dissolving the PP3 in the solvent of choice, which should be purged with an inert gas. PP3 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PP3 in these solvents is approximately 0.15, 1, and 3 mg/ml, respectively.

PP3 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PP3 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PP3 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The Src family of non-receptor tyrosine kinases regulate cell adhesion, growth, and differentiation through activation of multiple intracellular signaling pathways. Normally inactive, Src kinases are transiently activated during mitosis and constitutively activated by abnormal mutations. Several small molecule inhibitors of this signaling pathway have been developed as a therapeuptic strategy to abate abnormal Src kinase activity. PP3 is an inactive analog of the Src tyrosine kinase inhibitors PP1 (Item No. 14244) and PP2 (Item No. 13198). At concentrations as high as 10 µM, it does not prevent proliferation mediated by a stem cell factor/mast cell growth factor in hematopoietic and cancer cell lines.[1,2]

References

1. Ungefroren, H., Sebens, S., Groth, S., *et al*. The Src family kinase inhibitors PP2 and PP1 block TGF-beta1-mediated cellular responses by direct and differential inhibition of type I and type II TGF-beta receptors. *Curr. Cancer Drug Targets* **11(4)**, 524-535 (2011).
2. Tatton, L., Morley, G.M., Chopra, R., *et al*. The Src-selective kinase inhibitor PP1 also inhibits kit and Bcr-Abl tyrosine kinases. *J. Biol. Chem.* **278(7)**, 4847-4853 (2003).

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