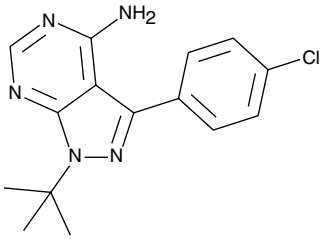
Product Information

PP2

Item No. 13198

CAS Registry No.: 172889-27-9
Formal Name: 3-(4-chlorophenyl)-1-(1,1-dimethylethyl)-1H-pyrazolo[3,4-d] pyrimidin-4-amine
Synonym: AGL 1879
MF: $C_{15}H_{16}ClN_5$
FW: 301.8
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that PP2 be stored as supplied at -20°C. It should be stable for at least two years.

PP2 is supplied as a crystalline solid. A stock solution may be made by dissolving the PP2 in the solvent of choice. PP2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PP2 is approximately 0.15, 1.4, and 3 mg/ml in ethanol, DMSO, and DMF, respectively.

PP2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PP2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PP2 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.

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. PP2 is a potent, reversible, ATP-competitive, and selective inhibitor of the Src family of protein tyrosine kinases. It inhibits $p56^{lck}$ (IC_{50} = 4 nM), $p59^{fynT}$ (IC_{50} = 5 nM), Hck (IC_{50} = 5 nM), and Src (IC_{50} = 100 nM).[1] PP2 does not significantly affect the activity of EGFR kinase (IC_{50} = 480 nM), JAK2 (IC_{50} > 50 µM), or ZAP-70 (IC_{50} > 100 µM).[1] PP2 inhibits the activation of focal adhesion kinase as well as its phosphorylation at Tyr^{577}. PP2 also inhibits anti-CD3-stimulated tyrosine phosphorylation of human T-cells with an IC_{50} value of 600 nM.[1]

Reference

1. Hanke, J.H., Gardner, J.P., Dow, R.L., *et al.* Discovery of a novel, potent, and Src family-selective tyrosine kinase inhibitor. Study of Lck- and FynT-dependent T cell activation. *J. Biol. Chem.* **271(2)**, 695-701 (1996).

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