

#9052 Store at -20C

Dasatinib

5 mg



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Background

Dasatinib is a small molecule inhibitor of both the Src and Bcr-Abl tyrosine kinases, with IC₅₀ values of 0.55 and 3.0 nM for the isolated kinases, respectively (1). Imatinib and dasatinib have similar inhibitory mechanisms, but dasatinib displays greater potency in imatinib-resistant cell lines and greater inhibitory effect on platelet derived growth factor (PDGF) (2,3).

Molecular Formula

C₂₂H₂₆ClN₇O₂S

Molecular Weight

488 g/mol

Purity

>99%

CAS

302962-49-8

Solubility

Soluble in DMSO at 200mg/ml.

Storage

Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use

Dasatinib is supplied as a lyophilized powder. For a 5 mM stock, reconstitute the 5 mg in 2.05 mL DMSO. Working concentrations and length of treatments vary depending on the desired effect, but it is typically used at 50-500 nM for 2-6 hours. Soluble in DMSO at 200 mg/mL; very poorly soluble in ethanol and water with maximum solubility in water estimated to be about 10 µM.

Background References

1. Lombardo, L.J. et al. (2004) *J Med Chem* 47, 6658-61.
2. Copland, M. et al. (2006) *Blood* 107, 4532-9.
3. Chen, Z. et al. (2006) *Mol Pharmacol* 69, 1527-33.

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