#9052 Store at -20°C

Dasatinib

☑ 5 mg

Cell Signaling TECHNOLOGY®

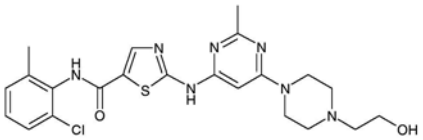
Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

New 12/11

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Background: Dasatinib is a small molecule inhibitor of both the Src and Bcr-Abl tyrosine kinases, with IC_{50} 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: $C_{22}H_{26}ClN_7O_2S$

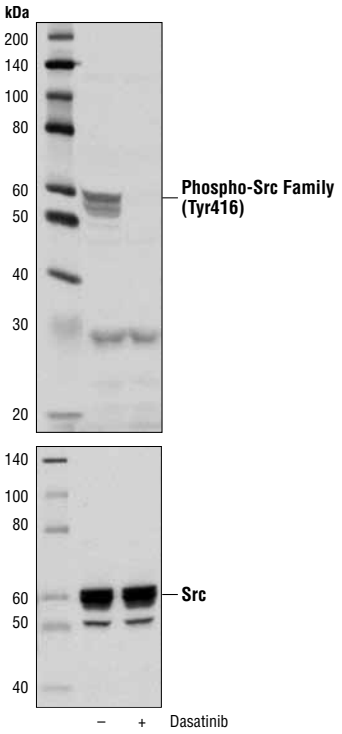


Molecular Weight: 488.01

Solubility: 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.

Purity: >99%.

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.



Western blot analysis of extracts from LNCaP cells, untreated (-) or treated with dasatinib (100 nM, 2 hr; +), using Phospho-Src Family (Tyr416) Antibody #2101 (upper) and Src (36D10) Rabbit mAb #2109 (lower).

Storage: Store lyophilized or in solution at -20ºC. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency.

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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