

Dasatinib

Catalog No: tcsc0100



Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Size: 2g

Size: 5g

Size: 10g



Specifications

CAS No:

302962-49-8

Formula:

$C_{22}H_{26}ClN_7O_2S$

Pathway:

Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK;Autophagy

Target:

Src;Bcr-Abl;Autophagy

Purity / Grade:

>98%

Solubility:

DMSO : 35.35 mg/mL (72.44 mM; Need ultrasonic and warming)

Alternative Names:

BMS-354825

Observed Molecular Weight:

488.01

Product Description

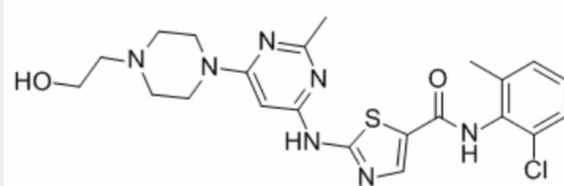
Dasatinib (BMS-354825) is a dual **Bcr-Abl** and **Src** family tyrosine kinase inhibitor with **IC₅₀s** of 0.6, 0.8, 79 and 37 nM for Abl, Src, c-Kit and c-Kit^{D816V}, respectively.

IC₅₀ & Target: IC₅₀: 0.6 nM/0.8 nM (Abl^{WT}/Src)^[1]

IC₅₀: 79 nM/37 nM (c-Kit^{WT}/c-Kit^{D816V})^[2]

In Vitro: Dasatinib potently inhibits wild-type Abl kinase and all mutants except T315I over a narrow range ($IC_{50} \leq 1.7$ nM). Dasatinib (IC_{50} : 0.8 nM) displays 325-fold greater potency compared with Imatinib against cells expressing wild-type Bcr-Abl in Ba/F3 cells^[1].

In Vivo: Daily treatment with Dasatinib (50 mg/kg) is initiated on day 10. Using this approach, a significant inhibition of BCPAP orthotopic tumor growth is observed 6 days after treatment (day 16, $P=0.014$), which is sustained through days 23 and 29 ($P=0.0003$), compared with vehicle-treated mice^[3]. Metabolism studies of Dasatinib (50 mg/kg) in rat suggested that Dasatinib is the major circulating component, whereas multiple metabolites contributed to the remaining 40-60% of the sample radioactivity at 4 h post dose^[4].



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