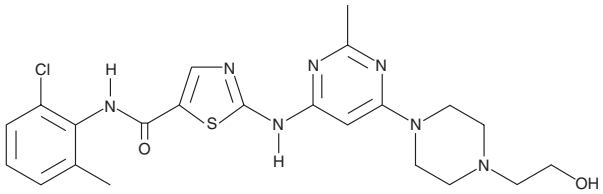
PRODUCT INFORMATION

Dasatinib

Item No. 11498

CAS Registry No.:	302962-49-8
Formal Name:	N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)-1-piperazinyl]-2-methyl-4-pyrimidinyl]amino]-5-thiazolecarboxamide
Synonyms:	BMS 354825, Sprycel
MF:	$C_{22}H_{26}ClN_7O_2S$
FW:	488.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 323 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

Dasatinib is supplied as a crystalline solid. A stock solution may be made by dissolving the dasatinib in the solvent of choice, which should be purged with an inert gas. Dasatinib is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of dasatinib in these solvents is approximately 14.3 and 25 mg/ml, respectively.

Dasatinib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dasatinib should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Dasatinib has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Dasatinib is a potent inhibitor of the non-receptor tyrosine kinases Abl and Src as well as other members of the Src family.[1,2] It is effective at sub-nanomolar concentrations, inhibiting Src, Abl, and Lck with IC_{50} values of 0.05, 0.5, and 0.4 nM, respectively.[1,3,4] At nanomolar concentrations, dasatinib also blocks the activity of several other receptor and non-receptor tyrosine kinases, plus drug resistant mutants.[3,4] Because of these activities, dasatinib has potential therapeutic value in diseases that are characterized by elevated levels of these kinases, including some forms of cancer and fibrotic disease.[1,5-7]

References

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