

Product Information



Imatinib (mesylate)

Item No. 13139

CAS Registry No.: 220127-57-1

Formal Name: 4-[[4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-methanesulfonate-benzamide

Synonyms: CGP57148B, Gleevec, Glivec, STI-571

MF: $C_{29}H_{31}N_7O \cdot CH_3SO_3$

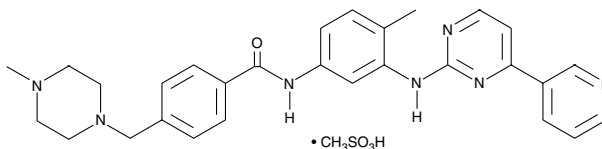
FW: 589.7

Purity: $\geq 98\%$

Stability: ≥ 2 years at -20°C

Supplied as: A crystalline solid

UV/Vis.: λ_{max} : 238, 271 nm



Laboratory Procedures

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

Imatinib mesylate is supplied as a crystalline solid. A stock solution may be made by dissolving the imatinib mesylate in an organic solvent purged with an inert gas. Imatinib mesylate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of imatinib mesylate in these solvents is approximately 0.2, 14, and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of imatinib mesylate can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of imatinib mesylate in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Imatinib mesylate is a first generation tyrosine kinase inhibitor that is used in the treatment of chronic myelogenous leukemia (CML), gastrointestinal stromal tumors (GIST), and other cancers. It selectively targets certain tyrosine kinases, including c-ABL, platelet-derived growth factor receptor, and KIT.^{1,2} In CML, imatinib mesylate inhibits the oncoprotein BCR-ABL, the product of the Philadelphia chromosome gene fusion.

References

1. Druker, B.J. Translation of the Philadelphia chromosome into therapy for CML. *Blood* **112**, 4808-4817 (2008).
2. Müller, B.A. Imatinib and its successors-how modern chemistry has changed drug development. *Current Pharmaceutical Design* **15**, 120-133 (2009).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13139

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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