

**Product Name:** Imatinib mesylate

**Catalog No.:** 5906

**Batch No.:** 2

CAS Number: 220127-57-1

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

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>29</sub>H<sub>31</sub>N<sub>7</sub>O·CH<sub>4</sub>O<sub>3</sub>S·1/4H<sub>2</sub>O

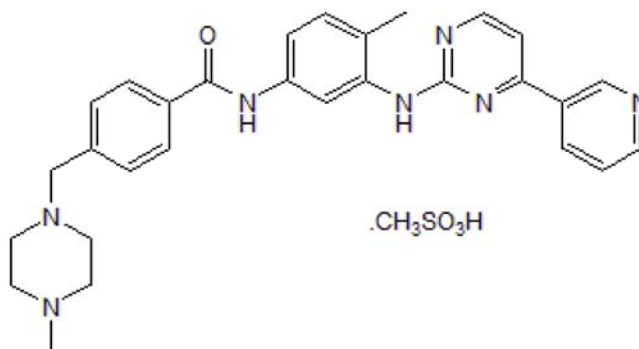
**Batch Molecular Weight:** 594.21

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 100 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.6% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	60.64	6.02	16.5
Found	60.62	5.97	16.46

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Imatinib mesylate is a potent and selective v-Abl tyrosine kinase inhibitor (IC<sub>50</sub> = 38 nM). Also inhibits PDGFR and c-kit. Exhibits selectivity for v-Abl over a panel of other tyrosine and serine/threonine protein kinases. Selectively inhibits PDGF-stimulated growth of v-abl-transformed PB-3 cells and v-sis-transformed BALB/c 3T3 cells in vitro. Exhibits antitumor effects in mice bearing AMuLV or BABL/c 3T3 v-sis cells. Inhibits replication of SARS-CoV and MERS-CoV in vitro (EC<sub>50</sub> values are 9.823 and 17.689 μM, respectively).

**Physical and Chemical Properties:**

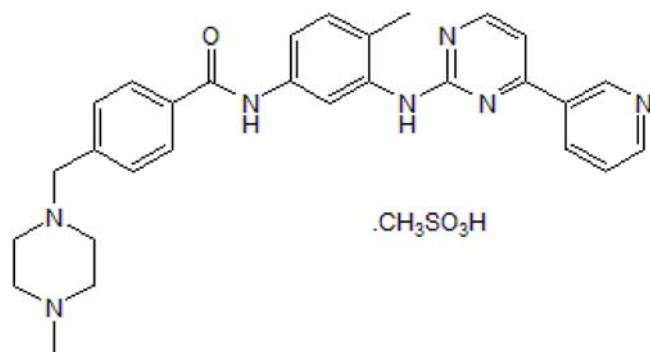
Batch Molecular Formula: C<sub>29</sub>H<sub>31</sub>N<sub>7</sub>O.CH<sub>4</sub>O<sub>3</sub>S.½H<sub>2</sub>O

Batch Molecular Weight: 594.21

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 100 mM

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Dyall et al** (2014) Repurposing of clinically developed drugs for treatment of Middle East Respiratory Syndrome coronavirus infection. *Antimicrob.Agents Chemother.* **58** 4885. PMID: 24841273.

**Juurikivi et al** (2005) Inhibition of c-kit tyrosine kinase by ima. mesylate induces apoptosis in mast cells in rheumatoid synovia: a potential approach to the treatment of arthritis. *Ann.Rheum.Dis.* **64** 1126. PMID: 16014680.

**Buchdunger et al** (1996) Inhibition of the Abl protein-tyrosine kinase *in vitro* and *in vivo* by a 2-phenylaminopyrimidine derivative. *Cancer Res.* **56** 100. PMID: 8548747.

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