Data Sheet (Cat.No.T22859)

TargetMol
A DRUG SCREENING EXPERT

Imatinib hydrochloride

Chemical Properties

CAS No.:	862366-25-4
Formula:	C29H32ClN7O
Molecular Weight:	530.06
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Imatinib is a multi-target inhibitor of v-Abl, c-Kit, and PDGFR (IC50: 0.6 μM, 0.1 μM, and 0.1 μM, respectively). Imatinib is used to treat chronic myelogenous leukemia (CML), gastrointestinal stromal tumors (GISTs), and a number of other malignancies.
In vitro	In vitro assays for inhibition of a panel of tyrosine and serine/threonine protein kinases show that Imatinib inhibits the v-Abl tyrosine kinase and PDGFR potently (IC50: 0.6 and 0.1 μM, respectively). Imatinib inhibits the SLF-dependent activation of wild-type c-kit kinase activity with an IC50 for these effects of approximately 0.1 μM, which is similar to the concentration required for inhibition of PDGFR. Imatinib exhibits growth-inhibitory activity on the human bronchial carcinoid cell line NCI-H727 and the human pancreatic carcinoid cell line BON-1 (IC50: 32.4 and 32.8 μM, respectively) [1][2][3].
In vivo	in vivo: In the PS-ASODN group, tumor growth was inhibited by 59.437%, which was markedly higher than in the imatinib group (11.071%) and liposome negative control group. Cohorts of mice were maintained on chow formulated with imatinib 0.5 mg/g or control chow for the duration of the experiment [4][5][6].

Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.887 mL	9.433 mL	18.866 mL
5 mM	0.377 mL	1.887 mL	3.773 mL
10 mM	0.189 mL	0.943 mL	1.887 mL
50 mM	0.038 mL	0.189 mL	0.377 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

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