Product Data Sheet

Product Name: Imatinib hydrochloride
Cat. No.: GC15263

Chemical Properties

Cas. No.	862366-25-4		
Chemical Name	4-[(4-methylpiperazin-1-yl)methyl]-N-[4-methyl-3-[(4-pyridin-3-ylpyrimidin-2-yl)amino]cyclohexa-1,5-dien-1-yl]benzamide;hydrochloride		
SMILES	CC1C=CC(=CC1NC2=NC=CC(=N2)C3=CN=CC=C3)NC(=O)C4=CC=C(C=C4)CN5CCN(CC5)C.Cl		
Formula	$C_{29}H_{32}ClN_7O$	M.Wt	530.06
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Imatinib hydrochloride		

Background

Description: IC50 Value: 100 nM (PDGFR) [1]; 100 nM (c-Kit) [2] Imatinib is a multi-target inhibitor of v-Abl, c-Kit and PDGFR with IC50 of 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 with an IC50 of 0.6 and 0.1 μM, respectively [1]. Imatinib inhibits the SLF-dependent activation of wild-type c-kit kinase activity with a IC50 for these effects of approximately 0.1 μM, which is similar to the concentration required for inhibition of PDGFR [2]. Imatinib exhibits growth-inhibitory activity on the human bronchial carcinoid cell line NCI-H727 and the human pancreatic carcinoid cell line BON-1 with an IC50 of 32.4 and 32.8 μM, respectively [3]. 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 [4]. Cohorts of mice were maintained on chow formulated with imatinib 0.5 mg/g or control chow for the duration of the experiment [5]. Toxicity: Imatinib is mainly indicated for chronic myeloid leukemia and gastrointestinal stromal tumors but is also prescribed by dermatologists for dermatofibrosarcoma protuberans, systemic sclerosis, and systemic mastocytosis, among other conditions. Most adverse effects are mild or moderate and therapy is generally well tolerated [6]. Clinical trial: Imatinib Mesylate And Mycophenolate Mofetil For Steroid-Refractory Sclerotic/Fibrotic cGVHD In Children. Phase 2

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