Product Data Sheet

Product Name: Imatinib Impurity E
Cat. No.: GC60931

Chemical Properties

Cas. No.	1365802-18-1		
SMILES	O=C(NC1=CC=C(C)C(NC2=NC=CC(C3=CC=CN=C3)=N2)=C1)C4=CC=C(CN5CCN(CC6=CC=C(C=C6)C(NC7=CC=C(C)C(NC8=NC=C		
Formula	$C_{52}H_{48}N_{12}O_2$	M.Wt	873.02
Solubility		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		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Imatinib Impurity E		

Background

Imatinib Impurity E is the impurity of Imatinib. Imatinib is an orally bioavailable tyrosine kinases inhibitor that selectively inhibits BCR/ABL, v-Abl, PDGFR and c-kit kinase activity. Imatinib (STI571) works by binding close to the ATP binding site, locking it in a closed or self-inhibited conformation, therefore inhibiting the enzyme activity of the protein semicompetitively[1][2][3][4]. Imatinib also is an inhibitor of SARS-CoV and MERS-CoV[5].

[1]. Heinrich MC, et al. Inhibition of c-kit receptor tyrosine kinase activity by STI 571, a selective tyrosine kinase inhibitor. Blood. 2000 Aug 1;96(3):925-32. [2]. Guida T, et al. Sorafenib inhibits imatinib-resistant KIT and platelet-derived growth factor receptor beta gatekeeper mutants. Clin Cancer Res. 2007 Jun 1;13(11):3363-9. [3]. Iqbal N, et al. Imatinib: a breakthrough of targeted therapy in cancer. Chemother Res Pract. 2014;2014:357027. [4]. Okuda K, et al. ARG tyrosine kinase activity is inhibited by STI571.Blood. 2001 Apr 15;97(8):2440-8. [5]. Jeanne M Sisk, et al. Coronavirus S Protein-Induced Fusion Is Blocked Prior to Hemifusion by Abl Kinase Inhibitors. J Gen Virol. 2018 May;99(5):619-630.

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