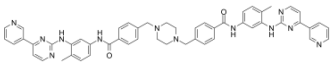
Imatinib Impurity E

Cat. No.:	HY-131275
CAS No.:	1365802-18-1
Molecular Formula:	$C_{52}H_{48}N_{12}O_2$
Molecular Weight:	873.02
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

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].

REFERENCES

[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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