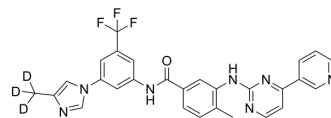


Nilotinib-d₃

Cat. No.:	HY-132549S
CAS No.:	1215678-43-5
Molecular Formula:	C ₂₈ H ₁₉ D ₃ F ₃ N ₇ O
Molecular Weight:	532.53
Target:	Bcr-Abl; Autophagy; Isotope-Labeled Compounds
Pathway:	Protein Tyrosine Kinase/RTK; Autophagy; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nilotinib-d ₃ is the deuterium labeled Nilotinib. Nilotinib is an orally available Bcr-Abl tyrosine kinase inhibitor with antineoplastic activity[1][2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Weisberg E, et al. Beneficial effects of combining nilotinib and imatinib in preclinical models of BCR-ABL+ leukemias. *Blood*. 2007 Mar 1;109(5):2112-20.
- [3]. Sako H, et al. Antitumor effect of the tyrosine kinase inhibitor Nilotinib on gastrointestinal stromal tumor (GIST) and Imatinib-resistant GIST cells. *PLoS One*. 2014 Sep 15;9(9):e107613.
- [4]. Dervis Hakim G, et al. Mucosal healing effect of nilotinib in indomethacin-induced enterocolitis: A rat model. *World J Gastroenterol*. 2015 Nov 28;21(44):12576-85.
- [5]. Fujita KI, et al. Involvement of the Transporters P-Glycoprotein and Breast Cancer Resistance Protein in Dermal Distribution of the Multikinase Inhibitor Regorafenib and Its Active Metabolites. *J Pharm Sci*. 2017 Sep;106(9):2632-2641.
- [6]. Meirson T, et al. Targeting invadopodia-mediated breast cancer metastasis by using ABL kinase inhibitors. *Oncotarget*. 2018 Apr 24;9(31):22158-22183.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA