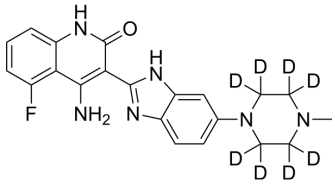
Dovitinib-d8

Cat. No.:	HY-50905S
CAS No.:	1246819-84-0
Molecular Formula:	$C_{21}H_{13}D_8FN_6O$
Molecular Weight:	400.48
Target:	c-Kit; FLT3; FGFR; VEGFR; PDGFR; c-Fms
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dovitinib-d_8 is the deuterium labeled Dovitinib. Dovitinib (CHIR-258) is a multi-targeted tyrosine kinase inhibitor with IC50s of 1, 2, 8/9, 10/13/8, 27/210 nM for FLT3, c-Kit, FGFR1/FGFR3, VEGFR1/VEGFR2/VEGFR3 and PDGFRα/PDGFRβ, respectively[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]. Cox L, et al. Levomepromazine for nausea and vomiting in palliative care. Cochrane Database Syst Rev. 2015;2015(11):CD009420. Published 2015 Nov 2.

[2]. Trudel S, et al. CHIR-258, a novel, multitargeted tyrosine kinase inhibitor for the potential treatment of t(4;14) multiple myeloma. Blood. 2005, 105(7), 2941-2948.

[3]. Huynh H, et al. Dovitinib demonstrates antitumor and antimetastatic activities in xenograft models of hepatocellular carcinoma. J Hepatol. 2012, 56(3), 595-601.

[4]. Lee Y, et al. A Receptor Tyrosine Kinase Inhibitor, Dovitinib (TKI-258), Enhances BMP-2-Induced Osteoblast Differentiation In Vitro. Mol Cells. 2016 May 31;39(5):389-94

[5]. Chon HJ, et al. Traf2- and Nck-interacting kinase (TNIK) is involved in the anti-cancer mechanism of dovitinib in human multiple myeloma IM-9 cells. Amino Acids. 2016 Jul;48(7):1591-9.

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