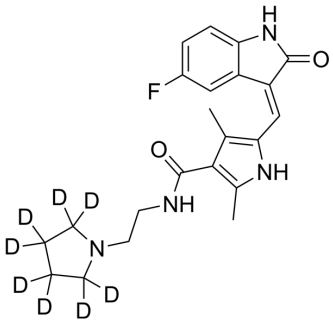
Toceranib-d_8

Cat. No.:	HY-10330S
CAS No.:	1795134-78-9
Molecular Formula:	$C_{22}H_{17}D_8FN_4O_2$
Molecular Weight:	404.51
Target:	PDGFR; VEGFR; c-Kit; Isotope-Labeled Compounds
Pathway:	Protein Tyrosine Kinase/RTK; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Toceranib-d_8 is the deuterium labeled Toceranib. Toceranib (SU11654) is an orally active receptor tyrosine kinase (RTK) inhibitor, and it potently inhibits PDGFR, VEGFR, and Kit with Kis of 5 and 6 nM for PDGFRβ and Flk-1/KDR, respectively. Toceranib (SU11654) has antitumor and antiangiogenic activity, and used in the treatment of canine mast cell tumors[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]. London CA, et al. Phase I dose-escalating study of SU11654, a small molecule receptor tyrosine kinase inhibitor, in dogs with spontaneous malignancies. Clin Cancer Res. 2003 Jul;9(7):2755-68.

[3]. Halsey CH, et al. Development of an in vitro model of acquired resistance to toceranib phosphate (Palladia?) in canine mast cell tumor. BMC Vet Res. 2014 May 6;10:105.

[4]. Mitchell L, et al. Clinical and immunomodulatory effects of toceranib combined with low-dose cyclophosphamide in dogs with cancer. J Vet Intern Med. 2012 Mar-Apr;26(2):355-62.

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