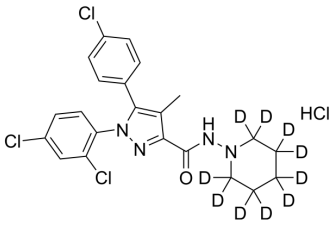
Rimonabant-d_{10} hydrochloride

Cat. No.:	HY-14137S
CAS No.:	1044909-61-6
Molecular Formula:	$C_{22}H_{12}D_{10}Cl_4N_4O$
Molecular Weight:	510.31
Target:	Cannabinoid Receptor; Bacterial; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Rimonabant-d_{10} (hydrochloride) is the deuterium labeled Rimonabant hydrochloride. Rimonabant hydrochloride (SR 141716A hydrochloride) is a highly potent and selective central cannabinoid receptor (CB1) antagonist with an Ki of 1.8 nM. Rimonabant hHydrochloride (SR 141716A Hydrochloride) also inhibits Mycobacterial membrane protein Large 3 (MMPL3)[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]. Erdozain, A. M. et al. The inverse agonist effect of rimonabant on G protein activation is not mediated by the cannabinoid CB1 receptor: Evidence from postmortem human brain Biochemical Pharmacology (2012), 83(2), 260-268.

[2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[3]. Seely KA, et al. AM-251 and rimonabant act as direct antagonists at mu-opioid receptors: Implications for opioid/cannabinoid interaction studies. Neuropharmacology. 2012 Oct;63(5):905-15.

[4]. Zhang B, et al. Crystal Structures of Membrane Transporter MmpL3, an Anti-TB Drug Target. Cell. 2019 Jan 24;176(3):636-648.e13.

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