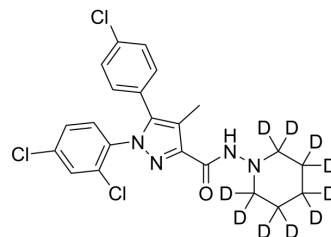


Rimonabant-d₁₀

Cat. No.:	HY-14136S
CAS No.:	929221-88-5
Molecular Formula:	C ₂₂ H ₁₁ D ₁₀ Cl ₃ N ₄ O
Molecular Weight:	473.85
Target:	Bacterial; Cannabinoid Receptor; Isotope-Labeled Compounds
Pathway:	Anti-infection; GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Rimonabant-d ₁₀ is deuterium labeled Rimonabant. Rimonabant (SR141716) is a highly potent, brain penetrated and selective central cannabinoid receptor (CB1) antagonist with a K _i of 1.8 nM. Rimonabant (SR141716) also inhibits Mycobacterial membrane protein Large 3 (MMPL3).
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]. 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.
- [3]. Leite, C.E., et al. Rimonabant: An antagonist drug of the endocannabinoid system for the treatment of obesity. *Pharmacol Rep* 61 217-224 (2009).
- [4]. Seely KA, Brents LK, Franks LN, Rajasekaran M, Zimmerman SM, Fantegrossi WE, Prather PL. 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.
- [5]. Zhang B, et al. Crystal Structures of Membrane Transporter MmpL3, an Anti-TB Drug Target. *Cell.* 2019 Jan 24;176(3):636-648.e13.

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