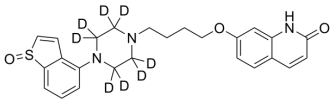
Brexpiprazole S-oxide-d_8

Cat. No.:	HY-133152S
CAS No.:	2748605-29-8
Molecular Formula:	$C_{25}H_{19}D_8N_3O_3S$
Molecular Weight:	457.61
Target:	5-HT Receptor; Dopamine Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Brexpiprazole S-oxide-d_8 is a deuterium labeled Brexpiprazole S-oxide. Brexpiprazole S-oxide is a main metabolite of Brexpiprazole and is metabolized by cytochrome P450 3A4 (CYP3A4). Brexpiprazole is an atypical antipsychotic agent and a partial agonist of human 5-HT1A and dopamine receptor with Kis of 0.12 nM and 0.3 nM, respectively. Brexpiprazole is also a 5-HT2A receptor antagonist with a Ki of 0.47 nM[1][2][3].		
IC_{50} & Target	5-HT_{1A} Receptor 0.12 nM (Ki)	5-HT_{2A} Receptor 0.47 nM (Ki)	D_2 Receptor 0.3 nM (Ki)

REFERENCES

[1]. Chen B, et al. Effects of 26 Recombinant CYP3A4 Variants on Brexpiprazole Metabolism. Chem Res Toxicol. 2019 Oct 17.

[2]. Ishima T, et al. Potentiation of neurite outgrowth by brexpiprazole, a novel serotonin-dopamine activity modulator: a role for serotonin 5-HT1A and 5-HT2A receptors. Eur Neuropsychopharmacol. 2015 Apr;25(4):505-11.

[3]. Yoshimi N, et al. Improvement of dizocilpine-induced social recognition deficits in mice by brexpiprazole, a novel serotonin-dopamine activity modulator. Eur Neuropsychopharmacol. 2015 Mar;25(3):356-64.

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