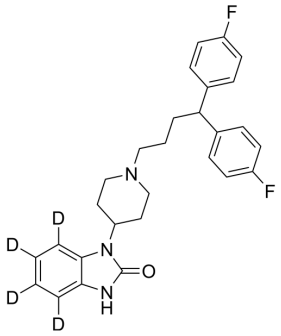
Pimozide-d_4-1



Cat. No.:	HY-12987S2
Molecular Formula:	$C_{28}H_{25}D_4F_2N_3O$
Molecular Weight:	465.57
Target:	Dopamine Receptor; Adrenergic Receptor; STAT; Parasite
Pathway:	GPCR/G Protein; Neuronal Signaling; JAK/STAT Signaling; Stem Cell/Wnt; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

BIOLOGICAL ACTIVITY

Description	Pimozide-d_4-1 is the deuterium labeled Pimozide. Pimozide is a dopamine receptor antagonist, with Kis of 1.4 nM, 2.5 nM and 588 nM for dopamine D2, D3 and D1 receptors, respectively, and also has affinity at α1-adrenoceptor, with a Ki of 39 nM; Pimozide also inhibits STAT3 and STAT5[1][2][3][4].
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[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ybema CE, et al. Adrenoceptors and dopamine receptors are not involved in the discriminative stimulus effect of the 5-HT1A receptor agonist flesinoxan. Eur J Pharmacol. 1994 Apr 21;256(2):141-7.

[2]. Cai N, et al. The STAT3 inhibitor pimozide impedes cell proliferation and induces ROS generation in human osteosarcoma by suppressing catalase expression. Am J Transl Res. 2017 Aug 15;9(8):3853-3866. eCollection 2017.

[3]. Erik A. Nelson, et al. The STAT5 inhibitor pimozide decreases survival of chronic myelogenous leukemia cells resistant to kinase inhibitors. Blood. 2011 Mar 24; 117(12): 3421-3429.

[4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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