Fluphenazine-d_8 dihydrochloride

Cat. No.: HY-A0081S

Molecular Formula: $C_{22}H_{20}D_8Cl_2F_3N_3OS$

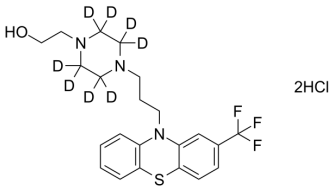
Molecular Weight: 518.49

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H2O : 100 mg/mL (192.87 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9287 mL	9.6434 mL	19.2868 mL
	5 mM	0.3857 mL	1.9287 mL	3.8574 mL
	10 mM	0.1929 mL	0.9643 mL	1.9287 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Fluphenazine-d_8 (dihydrochloride) is the deuterium labeled Fluphenazine dihydrochloride. Fluphenazine dihydrochloride is a phenothiazine-class D1DR and D2DR inhibitor; used to deliver Fluphenazine to biological systems in studies probing the effects and metabolic fates of this commonly used dopamine antagonist.

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]. Trzeciak HI, et al. Behavioral effects of withdrawal of fluphenazine after long-term treatment. Arzneimittelforschung. 1976;26(9):1697-700.

[3]. Whelpton R, Curry SH. Effect of 20, 6Methods for study of fluphenazine kinetics in man. J Pharm Pharmacol. 1976 Dec;28(12):869-73.

[4]. Javaid JI, et al. Fluphenazine determination in human plasma by a sensitive gas chromatographic method using nitrogen detector. J Chromatogr Sci. 1981 Sep;19(9):439-43.

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