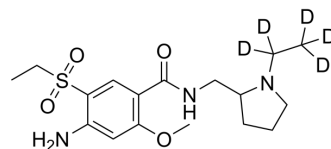


## Amisulpride-d<sub>5</sub>

<b>Cat. No.:</b>	HY-14545S		
<b>CAS No.:</b>	1216626-17-3		
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>22</sub> D <sub>5</sub> N <sub>3</sub> O <sub>4</sub> S		
<b>Molecular Weight:</b>	374.51		
<b>Target:</b>	Dopamine Receptor		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 200 mg/mL (534.03 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.6702 mL	13.3508 mL	26.7016 mL
	5 mM	0.5340 mL	2.6702 mL	5.3403 mL
	10 mM	0.2670 mL	1.3351 mL	2.6702 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Amisulpride-d<sub>5</sub> is the deuterium labeled Amisulpride. Amisulpride is a dopamine D<sub>2</sub>/D<sub>3</sub> receptor antagonist with K<sub>i</sub>s of 2.8 and 3.2 nM for human dopamine D<sub>2</sub> and D<sub>3</sub>, respectively<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

D<sub>3</sub> Receptor

#### 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<sup>[1]</sup>.

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.

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[2]. Schoemaker H, et al. Neurochemical characteristics of amisulpride, an atypical dopamine D2/D3 receptor antagonist with both presynaptic and limbic selectivity. J Pharmacol Exp Ther. 1997 Jan;280(1):83-97.

[3]. Pawar GR, et al. Evaluation of antidepressant like property of amisulpride per se and its comparison with fluoxetine and olanzapine using forced swimming test in albino mice. Acta Pol Pharm. 2009 May-Jun;66(3):327-31.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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