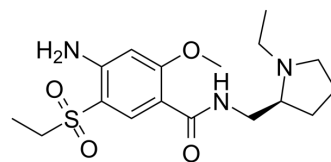


## (S)-Amisulpride

<b>Cat. No.:</b>	HY-126068	
<b>CAS No.:</b>	71675-92-8	
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>27</sub> N <sub>3</sub> O <sub>4</sub> S	
<b>Molecular Weight:</b>	369.48	
<b>Target:</b>	Dopamine Receptor; 5-HT 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

<b>In Vitro</b>	DMSO : 100 mg/mL (270.65 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.7065 mL	13.5325 mL	27.0651 mL
		5 mM	0.5413 mL	2.7065 mL	5.4130 mL
10 mM		0.2707 mL	1.3533 mL	2.7065 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	(S)-Amisulpride (Esamisulpride) is a potent dopamine D <sub>2</sub> /D <sub>3</sub> receptor antagonist. (S)-Amisulpride is an antagonist at the 5-HT <sub>7</sub> receptor with a K <sub>i</sub> of 900 nM. (S)-Amisulpride has antipsychotic and antidepressant effects <sup>[1][2]</sup> .		
<b>IC<sub>50</sub> &amp; Target</b>	D <sub>2</sub> Receptor	D <sub>3</sub> Receptor	5-HT <sub>7</sub> Receptor 900 nM (K <sub>i</sub> )
<b>In Vitro</b>	(S)-Amisulpride (Esamisulpride) displays high affinity binding at both D <sub>2</sub> and D <sub>3</sub> receptors and is approximately twice as		

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potent as racamisulpride and 20–50 times more potent than (R)-amisulpride at these receptors<sup>[2]</sup>  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

The (S)-amisulpride (10mg/kg, s.c.) stimulus is rapidly acquired and was shown to be dose-related, time dependent (effective between 30 and 120min) and stereoselective male C57BL/6 mice<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

[1]. Timothy J Donahue, et al. (S)-amisulpride as a discriminative stimulus in C57BL/6 mice and its comparison to the stimulus effects of typical and atypical antipsychotics. *Eur J Pharmacol.* 2014 Jul 5;734:15-22.

[2]. Vincent Grattan, et al. Antipsychotic Benzamides Amisulpride and LB-102 Display Polypharmacy as Racemates, S Enantiomers Engage Receptors D<sub>2</sub> and D<sub>3</sub>, while R Enantiomers Engage 5-HT<sub>7</sub>. *ACS Omega.* 2019 Aug 15;4(9):14151-14154.

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

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