# Inhibitors

## 2-Methyl-5-HT

Cat. No.: HY-19358 CAS No.: 78263-90-8 Molecular Formula:  $C_{11}H_{14}N_2O$ Molecular Weight: 190.24

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Powder -20°C

2 years

3 years

-80°C In solvent 2 years

> -20°C 1 year

**Product** Data Sheet

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (657.06 mM; Need ultrasonic) H<sub>2</sub>O: < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.2565 mL	26.2826 mL	52.5652 mL
	5 mM	1.0513 mL	5.2565 mL	10.5130 mL
	10 mM	0.5257 mL	2.6283 mL	5.2565 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (10.93 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (10.93 mM); Clear solution

#### **BIOLOGICAL ACTIVITY**

 $2\text{-Methyl-5-HT} \ (2\text{-Methyl-5-hydroxytryptamine}) \ is \ a \ potent \ and \ selective \ 5\text{-HT}_3 \ receptor \ agonist. \ 2\text{-Methyl-5-HT} \ is \ shown \ to \ agonist \ (2\text{-Methyl-5-HT}) \ is \ shown \ to \ (2\text{-Methyl-5-HT}) \ is \ shown \ show$ Description display anti-depressive-like effects<sup>[1]</sup>.

IC<sub>50</sub> & Target 5-HT<sub>3</sub> Receptor

In Vivo 2-Methyl-5-HT (2-Methyl-5-hydroxytryptamine) significantly decreases time of immobility thus showing anti-depressive-like effects<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats <sup>[1]</sup>	
Dosage:	3 mg/kg	
Administration:	I.p.; 45 minutes	
Result:	Significantly decreased time of immobility thus showing anti-depressive-like effects.	

### **REFERENCES**

[1]. Sumaya IC, et al. Differential effects of a short-term high-fat diet in an animal model of depression in rats treated with the 5-HT3 receptor antagonist, ondansetron, the 5-HT3 receptor agonist, 2-methyl-5-HT, and the SSRI, fluoxetine. Pharmacol Biochem Behav. 2016 May;144:78-84.

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

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