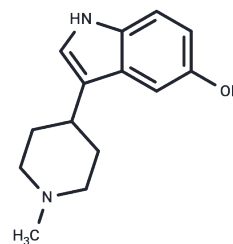


BRL 54443

Chemical Properties

CAS No. : 57477-39-1
 Formula: C₁₄H₁₈N₂O
 Molecular Weight: 230.31
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	BRL 54443 is a potent 5-HT _{1E/1F} receptor agonist (pK _i values: 8.7 and 8.9, respectively).
Targets(IC ₅₀)	5-HT Receptor
In vitro	BRL 54443 induced contractions with a -logEC ₅₀ of 6.52. Contractions induced by BRL 54443 are likely mediated by stimulation of 5-HT 5-HT 2A receptors.
In vivo	BRL 54443 induced contractions with a -logEC ₅₀ of 6.52. Contractions induced by BRL 54443 are likely mediated by stimulation of 5-HT 5-HT 2A receptors.
Kinase Assay	In Vitro Radiometric PKD Kinase Assay: The radiometric kinase assay is carried out by coincubating 0.5 μCi of [γ- ³² P]ATP, 20 μM ATP, 50 ng of purified recombinant human PKD (PKD1, PKD2, and PKD3) or CAMKIIα proteins, and 2.5 μg of Syntide-2 in 50 μl of kinase buffer that contains 50 mM Tris-HCl, pH 7.5, 4 mM MgCl ₂ , 10 mM β-mercaptoethanol. The reaction is carried out under conditions that the initial rate is within the linear kinetic range. The filter papers are then washed three times in 0.5% phosphoric acid, air-dried, and counted using a Beckman LS6500 multipurpose scintillation counter.

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 2 mg/mL (8.68 mM), Sonication is recommended. DMSO: 43 mg/mL (186.7 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.68 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.342 mL	21.7099 mL	43.4197 mL
5 mM	0.8684 mL	4.342 mL	8.6839 mL
10 mM	0.4342 mL	2.171 mL	4.342 mL
50 mM	0.0868 mL	0.4342 mL	0.8684 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Janssen P, et al. Eur J Pharmacol. 2004, 492(2-3), 259-267.

McKune CM, et al. J Pharmacol Exp Ther. 2001, 297(1), 88-95.

Xu P, Huang S, Zhang H, et al. Structural insights into the lipid and ligand regulation of serotonin receptors[J].

Nature. 2021, 592(7854): 469-473.

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