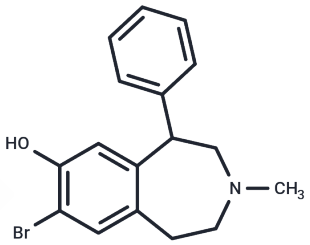
Data Sheet (Cat.No.T8702)

TargetMol

SKF-83566

Chemical Properties



CAS No. : 99295-33-7

Formula: C17H18BrNO

Molecular Weight: 332.23

Storage: Store at low temperature,Keep away from moisture
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	SKF-83566 is a blood-brain permeable and orally active antagonist of D1-like dopamine receptor and a weaker competitive 5-HT2 receptor antagonist with Ki of 11 nM
Targets(IC50)	5-HT Receptor,Dopamine Receptor
In vitro	SKF-83566 caused a concentration-dependent increase in peak single-pulse evoked extracellular DA concentration, with a maximum increase of 65% in 5 μM SKF-83566.? This was accompanied by a concentration-dependent increase in extracellular DA concentration clearance time.?Both effects were occluded by nomifensine (1 μM), a dopamine transporter (DAT) inhibitor, suggesting that SKF-83566 acted via the DAT.? Tested this by examining [(3)H]DA uptake into LLc-PK cells expressing rat DAT, and confirmed that SKF-83566 is a competitive DAT inhibitor with an IC(50) of 5.7 μM.? Binding studies with [(3)H]CFT, a cocaine analog, showed even more potent action of SKF-83566 at the DAT cocaine binding site (IC(50) = 0.51 μM)[1].
In vivo	The facilitation induced by nicotine and cocaine can be blocked by oral administration of the dopamine D1/D5 receptor antagonist (SKF 83566)

Solubility Information

Solubility	DMSO: 10 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 (6.02 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.010 mL	15.0498 mL	30.0996 mL
5 mM	0.602 mL	3.010 mL	6.0199 mL
10 mM	0.301 mL	1.505 mL	3.010 mL
50 mM	0.0602 mL	0.301 mL	0.602 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

Melissa A Stouffer, et al. SKF-83566, a D1-dopamine Receptor Antagonist, Inhibits the Dopamine Transporter. J Neurochem. 2011 Sep;118(5):714-20.
Yan-You Huang, et al.D1/D5 Receptors and Histone Deacetylation Mediate the Gateway Effect of LTP in Hippocampal Dentate Gyrus.
Yan-You Huang, et al. D1/D5 receptors and histone deacetylation mediate the Gateway Effect of LTP in hippocampal dentate gyrus. Learn Mem. 2014 Feb 18;21(3):153-60. doi: 10.1101/lm.032292.113.