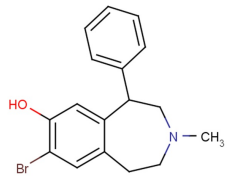
Data Sheet (Cat.No.T8702)

TargetMol
A DRUG SCREENING EXPERT

SKF-83566

Chemical Properties



CAS No.:	99295-33-7
Formula:	C17H18BrNO
Molecular Weight:	332.23
Appearance:	light tan solid
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

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(IC_{50})	5-HT2: 11 nM (Ki)
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 (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.01 mL	15.05 mL	30.1 mL
5 mM	0.602 mL	3.01 mL	6.02 mL
10 mM	0.301 mL	1.505 mL	3.01 mL
50 mM	0.06 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. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Melissa A Stouffer, et al. SKF-83566, a D1-dopamine Receptor Antagonist, Inhibits the Dopamine Transporter. J Neurochem. 2011 Sep;118(5):714-20.
2. Yan-You Huang, et al.D1/D5 Receptors and Histone Deacetylation Mediate the Gateway Effect of LTP in Hippocampal Dentate Gyrus.
3. 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.

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