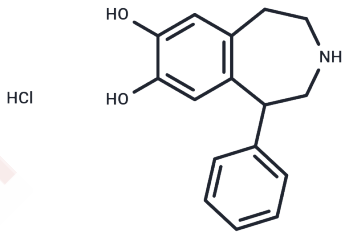
Data Sheet (Cat.No.T6988)

TargetMol

SKF 38393 hydrochloride

Chemical Properties



CAS No. : 62717-42-4

Formula: C16H17NO2·HCl

Molecular Weight: 291.77

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	SKF 38393 hydrochloride (SKF38393 HCl) is a selective dopamine D1/D5 receptor agonist.
Targets(IC50)	Dopamine Receptor
In vitro	SKF38393 (50-100 μM) induces long-lasting synaptic potentiation in a protein synthesis-dependent manner. [1] In rat prefrontal cortical neurons in vitro, SKF 38393 mimicks the effects of DA on I(NaP), and modulates a persistent sodium current. [2] In the auditory cortex, SKF38393 affects long-term memory formation and consolidation by activating the downstream effectors adenylyl cyclase and phospholipase C-prominent proteomic alterations. [4]
In vivo	SKF 38393(6 mg/kg, i.p.) prevents the scopolamine-induced impairment of performance of a T-maze working memory task. [3] In adult male NMRI mice, SKF38393 (1 μg/mouse) impaires context-dependent fear learning. [5]

Solubility Information

Solubility	Ethanol: 6 mg/mL (20.56 mM),Heating is recommended. H2O: 6.25 mg/mL (21.42 mM),Sonication is recommended. DMSO: 62.5 mg/mL (214.21 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	4% DMSO+96% Saline: 6 mg/mL (20.56 mM) 10% DMSO+90% Saline: 6.25 mg/mL (21.42 mM),Suspension. *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	3.4274 mL	17.1368 mL	34.2736 mL
5 mM	0.6855 mL	3.4274 mL	6.8547 mL
10 mM	0.3427 mL	1.7137 mL	3.4274 mL
50 mM	0.0685 mL	0.3427 mL	0.6855 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

Huang YY, et al. Proc Natl Acad Sci U S A. 1995, 92(7), 2446-2450.
Xiang Z, Wu F, He Z, et al.D1-like dopamine receptors promote B-cell differentiation in systemic lupus erythematosus.Cell Communication and Signaling.2024, 22(1): 1-13.
Gorelova NA, et al. J Neurophysiol. 2000, 84(1), 75-87.
Amico F, et al. Eur J Pharmacol. 2007, 577(1-3), 71-77.
Reichenbach N, et al. Proteome Sci. 2015, 13, 13.
Nasehi M, et al. Psychopharmacology (Berl). 2016, 233(2), 213-224.