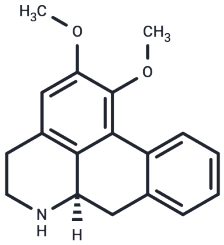
Data Sheet (Cat.No.TQ0296)

TargetMol

N-Nornuciferine

Chemical Properties



CAS No. : 4846-19-9

Formula: C18H19NO2

Molecular Weight: 281.35

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	N-Nornuciferine is an aporphine alkaloid derived from lotus leaf that strongly inhibits CYP2D6 with an IC50 of 3.76 μM and Ki of 2.34 μM, and pharmacokinetic studies show rapid absorption into blood with mean Cmax values of 1.71 μg/mL at 0.9 h and 0.57 μg/mL at 1.65 h after administration. Following intravenous dosing at 10 mg/kg, N-Nornuciferine exhibits a wide volume of distribution of 9.48-15.17 L/kg and slow elimination half-lives of 2.09-3.84 h. the oral bioavailability of N-Nornuciferine is estimated at 58.13-79.91%. At 20 mg/kg i.v. dosing, N-Nornuciferine also rapidly crosses the blood-brain barrier, achieving unbound Cmax values of 0.32 μg/mL and 0.16 μg/mL at approximately 0.89-1.22 h.
Targets(IC50)	Cytochromes P450
In vitro	N-Nornuciferine exhibits potent inhibitory effects on CYP2D6 enzyme activity, while demonstrating only weak or no inhibitory effects on the other four cytochrome P450 isoenzymes (CYP2C19, CYP3A4, CYP2E1, CYP2C9). Furthermore, N-Nornuciferine competitively inhibits the CYP2D6-catalyzed O-demethylation reaction of dextromethorphan, with a Ki value of 2.34 μM [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (284.34 mM),Sonication is recommeded. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5543 mL	17.7715 mL	35.5429 mL
5 mM	0.7109 mL	3.5543 mL	7.1086 mL
10 mM	0.3554 mL	1.7771 mL	3.5543 mL
50 mM	0.0711 mL	0.3554 mL	0.7109 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

Ye LH, et al. Identification and characterization of potent CYP2D6 inhibitors in lotus leaves. J Ethnopharmacol. 2014 Apr 11;153(1):190-6.