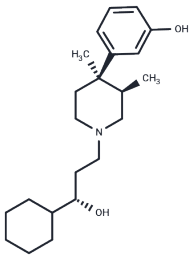
Data Sheet (Cat.No.T27934)

LY255582

Chemical Properties



CAS No. : 119193-09-8

Formula: C22H35NO2

Molecular Weight: 345.52

Storage: Store at low temperature
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	LY255582 is a selective centrally active opioid receptor antagonist with high affinity for mu, delta and kappa receptors with Ki of 0.4 nM, 5.2, 2.0 nM, respectively. LY255582 inhibits diet-associated increases in mesolimbic dopamine levels and reduces consumption of food intake. LY255582 is commonly used in obesity research. LY255582 is a potential compound for the study of opioid receptor-mediated cell signaling.
Targets(IC50)	Opioid Receptor
In vitro	LY255582 (40 μM, 24-72 h) biologically inhibits the viability of Huh7 and MHCC-97H cells. [1]
In vivo	LY255582 (100 μg, i.c.v.) reduces food intake in rats [2]. LY255582 (15 mg/kg/d, s.c., once daily) decreases food intake and body weight gain in obese Zucker rats [3].

Solubility Information

Solubility	DMSO: 13.5 mg/mL (39.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8942 mL	14.4709 mL	28.9419 mL
5 mM	0.5788 mL	2.8942 mL	5.7884 mL
10 mM	0.2894 mL	1.4471 mL	2.8942 mL
50 mM	0.0579 mL	0.2894 mL	0.5788 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

Levine AS, et al. Central administration of the opioid antagonist, LY255582, decreases short- and long-term food intake in rats. Brain Res. 1991;566(1-2):193-197.
Need AB, et al. In vivo rat brain opioid receptor binding of LY255582 assessed with a novel method using LC/MS/MS and the administration of three tracers simultaneously. Life Sci. 2007;81(17-18):1389-1396.
Gackenheimer SL, et al. Localization of opioid receptor antagonist [3H]-LY255582 binding sites in mouse brain: comparison with the distribution of mu, delta and kappa binding sites. Neuropeptides. 2005;39(6):559-567.
Shaw WN. Long-term treatment of obese Zucker rats with LY255582 and other appetite suppressants. Pharmacol Biochem Behav. 1993;46(3):653-659.
Chen DT, et al. The mu-opioid receptor is a molecular marker for poor prognosis in hepatocellular carcinoma and represents a potential therapeutic target. Br J Anaesth. 2019;122(6):157-167.

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