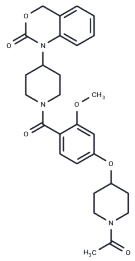
Data Sheet (Cat.No.T15682)

TargetMol

L-371,257

Chemical Properties



CAS No. : 162042-44-6

Formula: C28H33N3O6

Molecular Weight: 507.58

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	L-371,257 is a competitive antagonist of oxytocin receptor with pA2 of 8.4 and Ki of 19 nM. L-371,257 shows a Ki of 3.7 nM for vasopressin receptor 1a.
Targets(IC50)	Vasopressin Receptor,Oxytocin Receptor
In vivo	L-371,257 (0.5 and 1.0 mg/kg; i.p.) stimulates weight gain (10.5 g) relative to vehicle treatment (4.7 g) in rats[3].

Solubility Information

Solubility	DMSO: 8.1 mg/mL (15.96 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: 0.5 mg/mL (0.99 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	1.9701 mL	9.8507 mL	19.7013 mL
5 mM	0.394 mL	1.9701 mL	3.9403 mL
10 mM	0.197 mL	0.9851 mL	1.9701 mL
50 mM	0.0394 mL	0.197 mL	0.394 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

Williams PD, et al. 1-(1-[4-[(N-acetyl-4-piperidinyl)oxy]-2-methoxybenzoyl]piperidin-4- yl)-4H-3,1-benzoxazin-2 (1H)-one (L-371,257): a new, orally bioavailable, non-peptide oxytocin antagonist. J Med Chem. 1995 Nov 10;38 (23):4634-6.

Tunstall BJ, et al. Oxytocin blocks enhanced motivation for alcohol in alcohol dependence and blocks alcohol effects on GABAergic transmission in the central amygdala. PLoS Biol. 2019 Apr 16;17(4):e2006421.