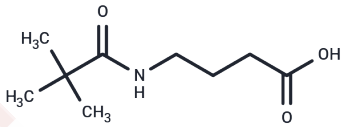
Data Sheet (Cat.No.T12492)

TargetMol

Pivagabine

Chemical Properties



CAS No. : 69542-93-4

Formula: C9H17NO3

Molecular Weight: 187.24

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	Pivagabine (CXB-722), a hydrophobic 4-aminobutyric acid derivative, exhibits neuromodulatory activity and successfully penetrates the blood-brain barrier in rats. It counteracts the impact of foot shock on GABAA receptor function and corticotropin-releasing factor (CRF) levels in the rat brain.
Targets(IC50)	GABA Receptor
In vivo	Pivagabine (CXB 722) (200 mg/kg; i.p.; administered twice daily for 4 days and 1 hour before euthanasia on the 5th day) prevents foot-shock stress-induced changes in CRF concentration in both brain regions[2].
Animal Research	Pivagabine (CXB 722) (200 mg/kg; i.p.; twice a day for 4 days and 1 hour before killing on the 5th day) prevents the effects of foot-shock stress on CRF concentration in both brain regions, reduced by 52% the CRF concentration in the hypothalamus but had no effect on that in the cerebral cortex[2].

Solubility Information

Solubility	DMSO: 45 mg/mL (240.33 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: 2 mg/mL (10.68 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	5.3407 mL	26.7037 mL	53.4074 mL
5 mM	1.0681 mL	5.3407 mL	10.6815 mL
10 mM	0.5341 mL	2.6704 mL	5.3407 mL
50 mM	0.1068 mL	0.5341 mL	1.0681 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

Esposito G, et al. Pivagabine: a novel psychoactive drug. Arzneimittelforschung. 1997 Nov;47(11A):1306-9.
Serra M, et al. Antagonism by pivagabine of stress-induced changes in GABAA receptor function and corticotropin-releasing factor concentrations in rat brain. Psychoneuroendocrinology. 1999 Apr;24(3):269-84.