Data Sheet (Cat.No.T13469)

TargetMol

(±)-Huperzine A

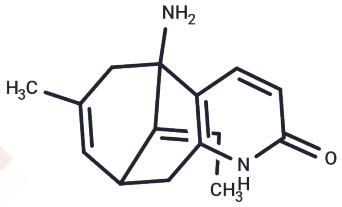
Chemical Properties

CAS No. : 120786-18-7

Formula: C15H18N2O

Molecular Weight: 242.32

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	(±)-Huperzine A is an active Lycopodium alkaloid extracted from traditional Chinese herbs. (±)-Huperzine A is a selective and reversible inhibitor of AChE and can be used in studies about the treatment of Alzheimer's disease.
Targets(IC50)	Cholinesterase (ChE)
In vitro	(±)-Huperzine A exhibited protective effects against d-gal-induced hepatotoxicity and inflammation-aging by inhibiting AChE activity and via the activation of the cholinergic anti-inflammatory pathway[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (206.34 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 (8.25 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	4.1268 mL	20.6339 mL	41.2677 mL
5 mM	0.8254 mL	4.1268 mL	8.2535 mL
10 mM	0.4127 mL	2.0634 mL	4.1268 mL
50 mM	0.0825 mL	0.4127 mL	0.8254 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

Burshtein G, et al. Transepithelial Transport of a Natural Cholinesterase Inhibitor, Huperzine A, along the Gastrointestinal Tract: the Role of Ionization on Absorption Mechanism. Planta Med. 2013 Jan 23.
Ruan Q, Liu F, Gao Z, et al. The anti-inflamm-aging and hepatoprotective effects of huperzine A in d-galactose-treated rats. Mech Ageing Dev. 2013 Jan 8. pii: S0047-6374(12)00182-0.
Zhang HY. New insights into huperzine A for the treatment of Alzheimer's disease. Acta Pharmacol Sin. 2012 Sep; 33(9):1170-5.
Wang J, Zhang HY, Tang XC. Huperzine a improves chronic inflammation and cognitive decline in rats with cerebral hypoperfusion. J Neurosci Res. 2010 Mar;88(4):807-15.
Park P, Schachter S, Yaksh T. Intrathecal huperzine A increases thermal escape latency and decreases flinching behavior in the formalin test in rats. Neurosci Lett. 2010 Feb 5;470(1):6-9.