(±)-Huperzine A

Cat. No.: HY-17388

CAS No.: 120786-18-7

Molecular Formula: $C_{15}H_{18}N_2O$

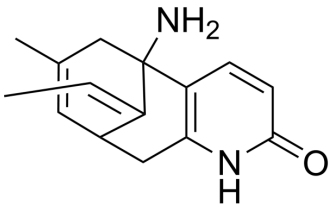
Molecular Weight: 242.32

Target: Cholinesterase (ChE)

Pathway: Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (206.34 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(±)-Huperzine A, an active Lycopodium alkaloid extracted from traditional Chinese herb, is a potent, selective and reversible acetylcholinesterase (AChE) inhibitor and has been widely used in China for the treatment of Alzheimer's disease (AD). IC50 value:Target: AChE(±)-Huperzine A exhibited protective effects against d-gal-induced hepatotoxicity and inflamm-aging by inhibiting AChE activity and via the activation of the cholinergic anti-inflammatory pathway. The (±)-Huperzine A mechanism might be involved in the inhibition of DAMPs-mediated NF-κB nuclear localization and activation. (±)-Huperzine A is a potential therapeutic agent for Alzheimer's disease.

IC_{50} & Target	AChE

CUSTOMER VALIDATION

- Microchem J. 2021, 106438.

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REFERENCES

[1]. Wang J, et al. Huperzine a improves chronic inflammation and cognitive decline in rats with cerebral hypoperfusion. J Neurosci Res. 2010 Mar;88(4):807-15.

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