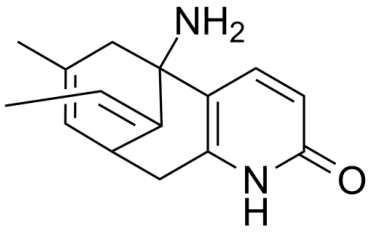
Data Sheet

Product Name:	(±)-Huperzine A
Cat. No.:	CS-1089
CAS No.:	120786-18-7
Molecular Formula:	$C_{15}H_{18}N_2O$
Molecular Weight:	242.32
Target:	Cholinesterase (ChE)
Pathway:	Neuronal Signaling
Solubility:	DMSO : ≥ 50 mg/mL (206.34 mM)



BIOLOGICAL ACTIVITY:

(±)-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.

References:

[1]. Burshtein G, Friedman M, Greenberg S, Hoffman A. 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.

[2]. 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.

[3]. Zhang HY. New insights into huperzine A for the treatment of Alzheimer's disease. Acta Pharmacol Sin. 2012 Sep;33(9):1170-5.

[4]. 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. doi: 10.1002/jnr.22237.

[5]. 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. doi: 10.1016/j.neulet.2009.12.033.

CAIndexNames:

5,9-Methanocycloocta[b]pyridin-2(1H)-one, 5-amino-11-ethylidene-5,6,9,10-tetrahydro-7-methyl-, (11E)-

SMILES:

O=C1C=CC(C(/C2=C/C)(N)CC(C)=CC2C3)=C3N1

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA