Product Data Sheet

Product Name: Huperzine B
Cat. No.: GC38793

Chemical Properties

Cas. No.	103548-82-9		
SMILES	CC1=C[C@]2([H])[C@]3([H])[C@](C(C=CC4=O)=C(N4)C2)(NCCC3)C1		
Formula	$C_{16}H_{20}N_2O$	M.Wt	256.34
Solubility	DMSO : 25 mg/mL (97.53 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Huperzine B		

Background

Huperzine B is an alkaloid originally isolated from *H. serrata* with neuroprotective activity.[1] It selectively binds to acetylcholinesterase (AChE) over butyrylcholinesterase (BChE; IC_{50}s = 8.2 and 157 ?M, respectively).[2] It is also an antagonist at the NMDA receptor (IC_{50} = 316.6 ?M).[3] Huperzine B (0.1-100 ?M) increases the viability of PC12 cells in a model of hydrogen peroxide-induced cell injury.[1] It increases glutathione peroxidase (GPX) and catalase (CAT) activities, and decreases malondialdehyde (MDA) levels, in PC12 cells in a model of hydrogen peroxide-induced cell injury when used at concentrations ranging from 10 to 100 ?M.

1.Zhang, H.Y., and Tang, X.C.Huperzine B, a novel acetylcholinesterase inhibitor, attenuates hydrogen peroxide induced injury in PC12 cellsNeurosci. Lett.292(1)41-44(2000) 2.Feng, S., Xia, Y., Han, D., et al.Synthesis and acetylcholinesterase inhibition of derivatives of huperzine BBioorg. Med. Chem. Lett.15(3)523-526(2005) 3.Wang, X.-D., Chen, X.-Q., Yang, H.-H., et al.Comparison of the effects of cholinesterase inhibitors on [3H]MK-801 binding in rat cerebral cortexNeurosci. Lett.272(1)21-24(1999)

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