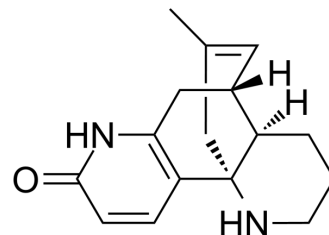


## Huperzine B

<b>Cat. No.:</b>	HY-N2043
<b>CAS No.:</b>	103548-82-9
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>20</sub> N <sub>2</sub> O
<b>Molecular Weight:</b>	256.34
<b>Target:</b>	Cholinesterase (ChE)
<b>Pathway:</b>	Neuronal Signaling
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (97.53 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>3.9011 mL</td> <td>19.5053 mL</td> <td>39.0107 mL</td> </tr> <tr> <td>5 mM</td> <td>0.7802 mL</td> <td>3.9011 mL</td> <td>7.8021 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3901 mL</td> <td>1.9505 mL</td> <td>3.9011 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	3.9011 mL	19.5053 mL	39.0107 mL	5 mM	0.7802 mL	3.9011 mL	7.8021 mL	10 mM	0.3901 mL	1.9505 mL	3.9011 mL
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	Please refer to the solubility information to select the appropriate solvent.																					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 1 mg/mL (3.90 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (3.90 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 1 mg/mL (3.90 mM); Clear solution</li> </ol>																					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Huperzine B is a Lycopodium alkaloid isolated from <i>Huperzia serrata</i> and a highly selective acetylcholinesterase (AChE) inhibitor. Huperzine B can be used to improve Alzheimer's disease <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	AChE <sup>[1]</sup>

### REFERENCES

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[1]. Zhang HY, et al. Huperzine B, a novel acetylcholinesterase inhibitor, attenuates hydrogen peroxide induced injury in PC12 cells. *Neurosci Lett*. 2000 Sep 29;292(1):41-4.

[2]. He XC, et al. Study on dual-site inhibitors of acetylcholinesterase: Highly potent derivatives of bis- and bifunctional huperzine B. *Bioorg Med Chem*. 2007 Feb 1;15(3):1394-408.

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

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