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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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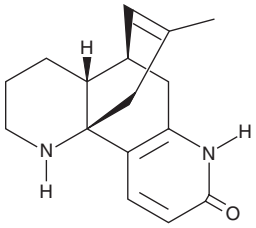
# PRODUCT INFORMATION

## Huperzine B

*Item No. 35629*

| | |
|---|---|
| **CAS Registry No.:** | 103548-82-9 |
| **Formal Name:** | 2,3,4,4aR,5R,6-hexahydro-12-methyl-1H-5,10bR-propeno-1,7-phenanthrolin-8(7H)-one |
| **Synonyms:** | Fordimine, (–)-Huperzine B |
| **MF:** | $C_{16}H_{20}N_2O$ |
| **FW:** | 256.3 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 231, 313 nm |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |
| **Item Origin:** | Plant/*Lycopodium serratum* |



*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Huperzine B is supplied as a solid. A stock solution may be made by dissolving the huperzine B in the solvent of choice, which should be purged with an inert gas. Huperzine B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of huperzine B in ethanol is approximately 2 mg/ml and approximately 1 mg/ml in DMSO and DMF.

### Description

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 µM, respectively).[2] It is also an antagonist at the NMDA receptor ($IC_{50}$ = 316.6 µM).[3] Huperzine B (0.1-100 µM) 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 µM.

### References


1. Zhang, H.Y. and Tang, X.C. Huperzine B, a novel acetylcholinesterase inhibitor, attenuates hydrogen peroxide induced injury in PC12 cells. *Neurosci. Lett.* **292(1)**, 41-44 (2000).
2. Feng, S., Xia, Y., Han, D., *et al.* Synthesis and acetylcholinesterase inhibition of derivatives of huperzine B. *Bioorg. 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 [$^3$H]MK-801 binding in rat cerebral cortex. *Neurosci. Lett.* **272(1)**, 21-24 (1999).





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