

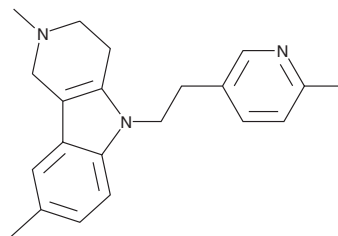
# Product Information



## Dimebolin

Catalog No. 9000556

**CAS Registry No.:** 3613-73-8  
**Formal Name:** 2,3,4,5-tetrahydro-2,8-dimethyl-5-[2-(6-methyl-3-pyridinyl)ethyl]-1H-pyrido[4,3-b]indole  
**Synonym:** Dimebon™  
**MF:** C<sub>21</sub>H<sub>25</sub>N<sub>3</sub>  
**FW:** 319.4  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that dimebolin be stored as supplied at -20°C. It should be stable for at least two years.

Dimebolin is supplied as a crystalline solid. A stock solution may be made by dissolving the dimebolin in the solvent of choice. Dimebolin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of dimebolin in these solvents is approximately 30, 1, and 3 mg/ml, respectively.

Dimebolin is sparingly soluble in aqueous buffers. Dimebolin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Dimebolin has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Dimebolin is an orally available drug, approved in Russia for use as a non-selective antihistamine, that has shown promise in the treatment of neurodegenerative diseases, including Alzheimer's and Huntington's disease.<sup>1-3</sup> In addition to reported activity in preventing the onset and progression of disease by being neuroprotective, dimebolin appears to promote clinical improvement by increasing cognitive function.<sup>2,4</sup> At the cellular level, dimebolin appears to have diverse effects, inhibiting the neurotoxic action of β-amyloid and blocking L-type calcium channels, inhibiting NMDA-type glutamate receptors, and preventing mitochondrial leakage.<sup>5-7</sup>

### References

1. Lermontova, N.N., Lukoyanov, N.V., Serkova, T.P., *et al. Bulletin of Experimental Biology and Medicine* **129**(6), 640-642 (2000).
2. Doody, R.S., Gavrilo, S.I., Sano, M., *et al. Lancet* **372**, 207-215 (2008).
3. Wu, J., Li, Q., and Bezprozvany, I. *Molecular Neurodegeneration* **3**(15), (2008).
4. Bachurin, S., Bukatina, E., Lermontova, N., *et al. Ann. N. Y. Acad. Sci.* **939**, 425-435 (2001).
5. Lermontova, N.N., Redkozubov, A.E., Shevtsova, E.F., *et al. Bulletin of Experimental Biology and Medicine* **132**(5), 1079-1083 (2001).
6. Grigor'ev, V.V., Dranyi, O.A., and Bachurin, S.O. *Bulletin of Experimental Biology and Medicine* **136**(5), 474-477 (2003).
7. Bachurin, S.O., Shevtsova, E.P., Kireeva, E.G., *et al. Ann. N. Y. Acad. Sci.* **993**, 334-344 (2003).

### Related Products

β-Amyloid (1-8, A2V) Peptide - Cat. No. 10229 • β-Amyloid (1-8) Peptide - Cat. No. 10241 • NMDA Receptor NR1 Subunit Monoclonal Antibody - Cat. No. 10607 • NMDA Receptor NR2A Subunit Polyclonal Antibody - Cat. No. 10608 • NMDA Receptor NR2B Subunit Polyclonal Antibody - Cat. No. 10609

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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