

Product Datasheet

VAR10300 dihydrochloride

Catalog No. **BP-02265A** · CAS **64821-19-8** · Form **salt** · **dihydrochloride** · Physical state **solid** · Color **White to yellow** ·
Version **1.0** · Revision **2026-09-04**

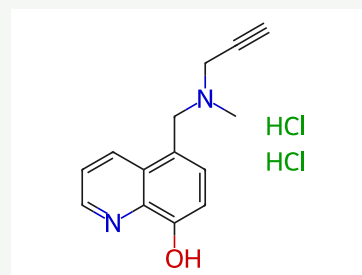
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Target Monoamine Oxidase	Research area Neurological Disease
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Molecular formula **C₁₄H₁₆Cl₂N₂O**

Molecular weight **299.1960**

STRUCTURE



DESCRIPTION

MAO-IN-M30 dihydrochloride is an orally active, brain-permeable, and brain selective irreversible MAO-A (IC₅₀=37 nM) and MAO-B (IC₅₀=57 nM) inhibitor. MAO-IN-M30 dihydrochloride is a potent iron chelator and radical scavenger. MAO-IN-M30 dihydrochloride has a neuroprotective effect against Dexamethasone-induced brain cell apoptosis. MAO-IN-M30 dihydrochloride also exhibits neurorestorative activity in post MPTP and lactacystin models of Parkinson's disease .

BIOLOGICAL ACTIVITY

In Vitro

MAO-IN-M30 (0.25 nM; 72 hours) significantly increased cell viability to ~90% after exposure to Dexamethasone.

MAO-IN-M30 (0-10 μM; 24 hours) enhances PC12 cell survival.

MAO-IN-M30 treatment significantly decreases the occurrence of fragmented DNA compared to the dexamethasone-treated group in SH-SY5Y cells.

In Vivo

MAO-IN-M30 (0.5-2.5 mg/kg; p.o.; once daily for 14 consecutive days) possesses neuroprotective activities

SOLUBILITY

Soluble in DMSO

In vitro DMSO : 2 mg/mL

REFERENCES

[1]. Gal S, et al. M30, a novel multifunctional neuroprotective drug with potent iron chelating and brain selective monoamine oxidase-ab inhibitory activity for Parkinson's disease. J Neural Transm Suppl. 2006;(70):447-456.

- [2]. Zheng H, et al. Novel multifunctional neuroprotective iron chelator-monoamine oxidase inhibitor drugs for neurodegenerative diseases: in vitro studies on antioxidant activity, prevention of lipid peroxide formation and monoamine oxidase inhibition. *J Neurochem.* 2005;95(1):68-78.
- [3]. Gal S, et al. Novel multifunctional neuroprotective iron chelator-monoamine oxidase inhibitor drugs for neurodegenerative diseases. In vivo selective brain monoamine oxidase inhibition and prevention of MPTP-induced striatal dopamine depletion. *J Neurochem.* 2005;95(1):79-88.
- [4]. Gal S, et al. Restoration of nigrostriatal dopamine neurons in post-MPTP treatment by the novel multifunctional brain-permeable iron chelator-monoamine oxidase inhibitor drug, M30. *Neurotox Res.* 2010;17(1):15-27.

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