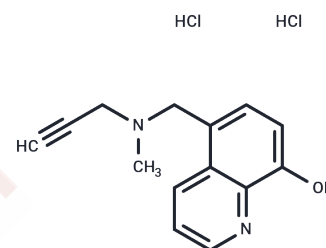


## MAO-IN-M30 dihydrochloride

### Chemical Properties

CAS No. :	64821-19-8
Formula:	C <sub>14</sub> H <sub>16</sub> Cl <sub>2</sub> N <sub>2</sub> O
Molecular Weight:	299.2
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	MAO-IN-M30 dihydrochloride is a highly potent non-selective inhibitor of MAO-A and MAO-B (IC <sub>50</sub> < 0.1 μM). MAO-IN-M30 dihydrochloride is orally active and can cross the blood-brain barrier. It is an effective iron chelator and free radical scavenger. MAO-IN-M30 dihydrochloride has neuroprotective activity in in vitro and in vivo models of Parkinson's disease (PD). It increases brain dopamine, serotonin and norepinephrine and can serve as a lead drug for the development of multifunctional drugs to treat various neurodegenerative diseases.
Targets(IC50)	Monoamine Oxidase
In vitro	MAO-IN-M30 (0.25 nM; 72 hours) significantly increased cell viability to ~90% after exposure to Dexamethasone and reduced the occurrence of fragmented DNA compared to the dexamethasone-treated group in SH-SY5Y cells[3]. Additionally, MAO-IN-M30 (0-10 μM; 24 hours) enhances PC12 cell survival[4].
In vivo	MAO-IN-M30 (0.5-2.5 mg/kg; p.o.; once daily for 14 consecutive days) exhibits neuroprotective activities [6].

### Solubility Information

Solubility	DMSO: 1.8 mg/mL (6.02 mM), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.3422 mL	16.7112 mL	33.4225 mL
5 mM	0.6684 mL	3.3422 mL	6.6845 mL
10 mM	0.3342 mL	1.6711 mL	3.3422 mL
50 mM	0.0668 mL	0.3342 mL	0.6684 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Zheng et al (2005) Novel potential neuroprotective agents with both iron chelating and amino acid-based derivatives targeting central nervous system neurons. *Biochem.Pharmacol.* 70 1642
- Zheng (2005) 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.* 95 68
- Gal et al (2005) 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 DA depletion. *J.Neurochem.* 95 79

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