# Pralidoxime iodide

**Cat. No.:** HY-B1738A

**CAS No.:** 94-63-3

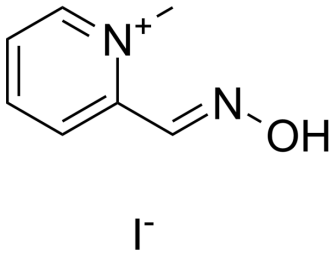
**Molecular Formula:** $C_7H_9IN_2O$

**Molecular Weight:** 264.06

**Target:** Cholinesterase (ChE)

**Pathway:** Neuronal Signaling

**Storage:** 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

**In Vitro**

DMSO : 250 mg/mL (946.75 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 3.7870 mL | 18.9351 mL | 37.8702 mL |
| | 5 mM | 0.7574 mL | 3.7870 mL | 7.5740 mL |
| | 10 mM | 0.3787 mL | 1.8935 mL | 3.7870 mL |

Please refer to the solubility information to select the appropriate solvent.

## BIOLOGICAL ACTIVITY

**Description**

Pralidoxime iodide is a potent reactivator of acetylcholinesterase (AChE). Pralidoxime iodide reactivates nerve agent-inhibited AChE via direct nucleophilic attack by the oxime moiety on the phosphorus center of the bound nerve agent. Pralidoxime iodide is an antidote for organophosphate poisoning[1][2].

**$IC_{50}$ & Target**

AChE

**In Vivo**

Pralidoxime iodide (10-150 mg/kg; intramuscular administration, once) reverses paraoxon-induced respiratory toxicity in mice[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|---|---|
| Animal Model: | Male F1B6D2 mice (toxic but non-lethal model of diethylparaoxon in awake, unrestrained mice)[3] |
| Dosage: | 10, 50, 100 and 150 mg/kg |

| | |
|---|---|
| Administration: | Intramuscularly, once |
| Result: | Induced a partial, albeit complete, reversal of respiratory toxicity at 50 mg/kg, and completely reversed diethylparaoxon-induced respiratory toxicity in mice at 150 mg/kg. |

## REFERENCES


[1]. Cadieux CL, et al. Probing the activity of a non-oxime reactivator for acetylcholinesterase inhibited by organophosphorus nerve agents. Chem Biol Interact. 2016;259(Pt B):133-141.

[2]. Eyer P, Buckley N. Pralidoxime for organophosphate poisoning. Lancet. 2006;368(9553):2110-2111.

[3]. Houzé P, et al. High Dose of Pralidoxime Reverses Paraoxon-Induced Respiratory Toxicity in Mice. Turk J Anaesthesiol Reanim. 2018;46(2):131-138.





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