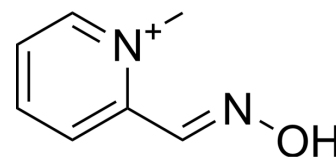


Pralidoxime

Cat. No.:	HY-B1738
CAS No.:	6735-59-7
Molecular Formula:	C ₇ H ₉ N ₂ O ⁺
Molecular Weight:	137.16
Target:	Cholinesterase (ChE)
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Pralidoxime is a potent reactivator of acetylcholinesterase (AChE). Pralidoxime reactivates nerve agent-inhibited AChE via direct nucleophilic attack by the oxime moiety on the phosphorus center of the bound nerve agent. Pralidoxime is an antidote for organophosphate poisoning ^{[1][2]} .	
IC₅₀ & Target	AChE	
In Vivo	Pralidoxime (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:	F1B6D2 mice (male, administered subcutaneously diethylparaoxon) ^[3]
	Dosage:	10, 50, 100, and 150 mg/kg
	Administration:	Intramuscular administration, 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]. Houz  P, et al. High Dose of Pralidoxime Reverses Paraoxon-Induced Respiratory Toxicity in Mice. *Turk J Anaesthesiol Reanim.* 2018;46(2):131-138.

Caution: Product has not been fully validated for medical applications. For research use only.

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