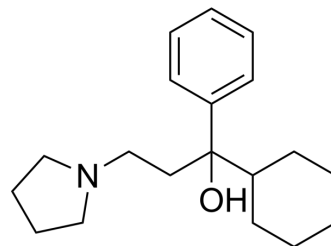


## Procyclidine

<b>Cat. No.:</b>	HY-B1487A
<b>CAS No.:</b>	77-37-2
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>29</sub> NO
<b>Molecular Weight:</b>	287.44
<b>Target:</b>	mAChR; iGluR
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Procyclidine (Tricyclamol; (±)-Procyclidine), an anticholinergic agent, is a muscarinic receptor antagonist that also has the properties of an N-methyl-D-aspartate (NMDA) antagonist. Procyclidine can be used in studies of Parkinson's disease and related psychiatric disorders such as Soman-induced epilepsy <sup>[1][2]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	NMDA Receptor								
<b>In Vivo</b>	<p>Procyclidine (subcutaneous injection, 0.3-6.0 mg/kg) in combination with physostigmine (PhS) increases protection in a dose-dependent manner in rats and guinea pigs infected with soman and can prevent seizures altogether<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male Sprague-Dawley rats, Dunkin-Hartley male guinea pigs<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>0.3-6.0 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Subcutaneous injection; once</td> </tr> <tr> <td>Result:</td> <td>Increased protection, resulting in 1.92, 2.24, 3.95 and 5.07 fold in rats, 3.00, 3.25, 4.50 and 4.70 fold in guinea pigs at the doses of 0.3, 1.0, 3.0 or 6.0 mg/kg, respectively. Protected the neurological integrity of the brain and prevented Soman-induced severe brain damage in the hippocampus, cortex, amygdala and thalamus.</td> </tr> </table>	Animal Model:	Male Sprague-Dawley rats, Dunkin-Hartley male guinea pigs <sup>[1]</sup>	Dosage:	0.3-6.0 mg/kg	Administration:	Subcutaneous injection; once	Result:	Increased protection, resulting in 1.92, 2.24, 3.95 and 5.07 fold in rats, 3.00, 3.25, 4.50 and 4.70 fold in guinea pigs at the doses of 0.3, 1.0, 3.0 or 6.0 mg/kg, respectively. Protected the neurological integrity of the brain and prevented Soman-induced severe brain damage in the hippocampus, cortex, amygdala and thalamus.
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### REFERENCES

- [1]. Yun-Bae Kim, et al. Effects of combinational prophylactics composed of physostigmine and procyclidine on soman-induced lethality, seizures and brain injuries. *Environ Toxicol Pharmacol.* 2002 Jan;11(1):15-21.
- [2]. Ulrich Ettinger, et al. Effects of procyclidine on eye movements in schizophrenia. *Neuropsychopharmacology.* 2003 Dec;28(12):2199-208.

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

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