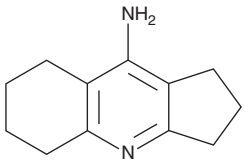
PRODUCT INFORMATION

Ipidacrine

Item No. 34529

CAS Registry No.:	62732-44-9
Formal Name:	2,3,5,6,7,8-hexahydro-1H-cyclopenta[b] quinolin-9-amine
Synonym:	NIK-247
MF:	$C_{12}H_{16}N_2$
FW:	188.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 215, 251 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ipidacrine is supplied as a solid. A stock solution may be made by dissolving the ipidacrine in the solvent of choice, which should be purged with an inert gas. Ipidacrine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ipidacrine in these solvents is approximately 25 mg/ml.

Ipidacrine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ipidacrine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ipidacrine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ipidacrine is an inhibitor of acetylcholinesterase (AChE; IC_{50} = 270 nM).[1] It induces long-term potentiation (LTP) in rat hippocampal slices, an effect that can be blocked by the muscarinic antagonists atropine (Item No. 12008) or pirenzepine (Item No. 29527), when used at a concentration of 10 µM.[2] Ipidacrine (0.03-1 mg/kg) prevents memory deficits induced by the anticholinergic agent scopolamine in the passive avoidance test in rats.[2]

References

1. Ogura, H., Kosasa, T., Kuriya, Y., *et al.* Comparison of inhibitory activities of donepezil and other cholinesterase inhibitors on acetylcholinesterase and butyrylcholinesterase in vitro. *Methods Find. Exp. Clin. Pharmacol.* **22(8)**, 609-613 (2000).
2. Yoshida, S. and Suzuki, N. Antiamnesic and cholinomimetic side-effects of the cholinesterase inhibitors, physostigmine, tacrine and NIK-247 in rats. *Eur. J. Pharmacol.* **250(1)**, 117-124 (1993).

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