# PRODUCT INFORMATION



# N-Isopropylnoratropine

Item No. 18611

CAS Registry No.: 22235-81-0

Formal Name: (3-endo)-8-(1-methylethyl)-8-

azabicyclo[3.2.1]oct-3-yl ester

α-(hydroxymethyl)-benzeneacetic acid

Synonym: NINA MF:  $C_{19}H_{27}NO_3$ FW: 317.4 **Purity:** ≥98%

Supplied as: A crystalline solid

Storage: -20°C Stability: ≥4 years

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



N-Isopropylnoratropine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-isopropylnoratropine in the solvent of choice, which should be purged with an inert gas. N-Isopropylnoratropine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of N-isopropylnoratropine in these solvents is approximately 16, 10, and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of N-isopropylnoratropine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N-isopropylnoratropine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

# Description

N-Isopropylnoraptropine is used in the synthesis of ipratropium, a bronchodilator compound with nonselective muscarinic antagonist activity. It has been used to examine the stability of ipratropium. 1

### Reference

1. Kasawar, G.B. and Farooqui, M. Development and validation of a stability indicating RP-HPLC method for the simultaneous determination of related substances of albuterol sulfate and ipratropium bromide in nasal solution. J. Pharm. Biomed. Anal. 52(1), 19-29 (2010).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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