



## CERTIFICATE OF ANALYSIS

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### 1. Identification

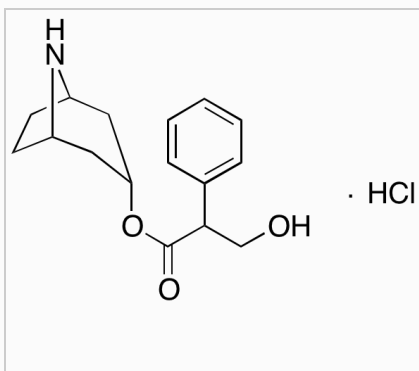
**Catalogue Number:** N661080

**CAS Number:** 537-29-1

**Product:** Noratropine Hydrochloride

**Synonym:** ?-(Hydroxymethyl)benzeneacetic Acid (3-endo)-8-Azabicyclo[3.2.1]oct-3-yl Ester Hydrochloride; 1?H,5?H-Nortropan-3?-ol, (+/-)-Tropate Ester Hydrochloride; N-Demethylatropine Hydrochloride;

**Structure:**



**Molecular Formula:**

$C_{16}H_{21}NO_3 \cdot HCl$

**Molecular weight:**

275.35 + 36.46

**Source of Product:**

Synthetic

**Solubility:**

Methanol (Slightly), Water (Slightly)

**Lot Number:** 6-AMR-73-5

**Purity:** 97%

**Shipping Condition:** This Product Is Stable To Be Shipped At Room Temperature

**Storage Condition:** 4°C

### 2. Warning

**Warning 1:**

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

Tests:	Specifications:	Results:
Specific Rotation	Report Result	-0.2° (c = 0.6, Methanol)
Appearance	Pale Beige to Brown Solid	Pale Beige to Light Beige Solid
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 60.57, %H: 7.23, %N: 4.59
HPLC Purity	Report Result	99.01% (210 nm)
Chloride Content	Report Result	10.97% by Ion Chromatography

**Additional Information:** N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of  $\pm 2\%$ . Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

### 4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Neha Khanna	Toni Rantanen	Christina Gouliaras	5/10/2022	5/8/2026