



CERTIFICATE OF ANALYSIS

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1. Identification

CAS Number:

51598-60-8

Catalogue Number:

TRC-C441685

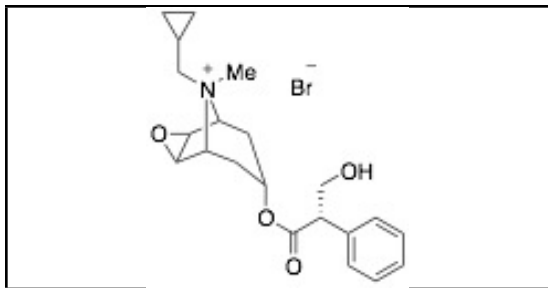
Product:

Cimetropium Bromide

Synonyms:

(1 α ,2 β ,4 β ,5 α ,7 β)-9-(Cyclopropylmethyl)-7-[(2S)-3-hydroxy-1-oxo-2-phenylpropoxy]-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane Bromide; [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]-9-(Cyclopropylmethyl)-7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane Bromide; 3-Oxa-9-azatricyclo[3.3.1.0^{2,4}]nonane, 3-Oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane

Structure:



Molecular Formula:

C₂₁H₂₈BrNO₄

Molecular Weight:

438.36

Source of Product:

Synthetic

2. Analytical Information

Lot Number:

8-YEN-133-1

Atmosphere:

Inert Gas

Melting Point:

169 - 173°C

Solubility

DMSO (Slightly), Methanol (Slightly), Water (Slightly)

Appearance of Product:

White Solid

Stability

Hygroscopic

Method for Determining Identity:

¹H NMR (DMSO-d₆) and MS

Long Term Storage Condition:

-20°C, Hygroscopic

Purity:

98.84% by HPLC

Shipping Condition

This Product Is Stable To Be Shipped At Room Temperature

Additional Information:

TLC Conditions: SiO₂; Dichloromethane : Methanol = 8 : 2; Visualized with AMCS and KMnO₄; Single Spot, R_f = 0.55.

¹H NMR and MS conform to structure.

Elemental Analysis: (Found) %C: 57.66, %H: 6.57, %N: 3.13; (Calculated) %C: 57.54, %H: 6.44, %N: 3.20

Bromide Content: 19.5%

Specific Rotation: -17.8° (c = 1.0, Water)

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 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.

Philip Chan, Head of Quality Assurance

QC Test Date

September 29, 2017

Retest Date

September 27, 2021