



CERTIFICATE OF ANALYSIS

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1. Identification

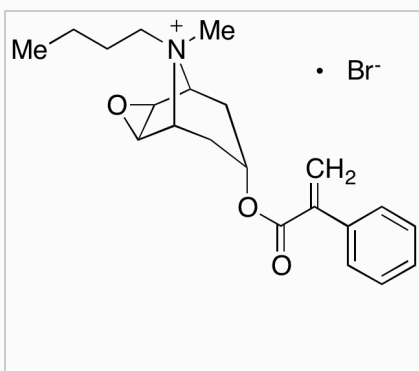
Catalogue Number: A727000

CAS Number: 92714-23-3

Product: Apobuscopan

Synonym: (1 α ,2 β ,4 β ,5 α ,7 β)-9-Butyl-9-methyl-7-[(1-oxo-2-phenyl-2-propenyl)oxy]-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 Deriv.

Structure:



Molecular Formula:

C₂₁H₂₈BrNO₃

Molecular weight:

422.36

Source of Product:

Synthetic

Solubility:

DMSO (Slightly), Methanol (Slightly)

Lot Number: 13-CNN-179-6

Purity: 94%

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

Storage Condition: -20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Off-White to Pale Yellow Solid	Off-White Solid
FT-IR	Conforms to Structure	Conforms
Bromide Content	Report Result	18.6%
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 58.24, %H: 6.56, %N: 3.39
HPLC Purity	Report Result	93.43% (200 nm)
MS	Conforms to Structure	Conforms
Specific Rotation	Report Result	0.0° (c = 0.2, Methanol)

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
Swathi Reddy	Toni Rantanen	Chanell Chu	3/16/2022	3/14/2026

