



Certificate of Analysis

Product Name	Tiotropium Bromide hydrate
Catalog No.	V1160
Batch No.	V116001

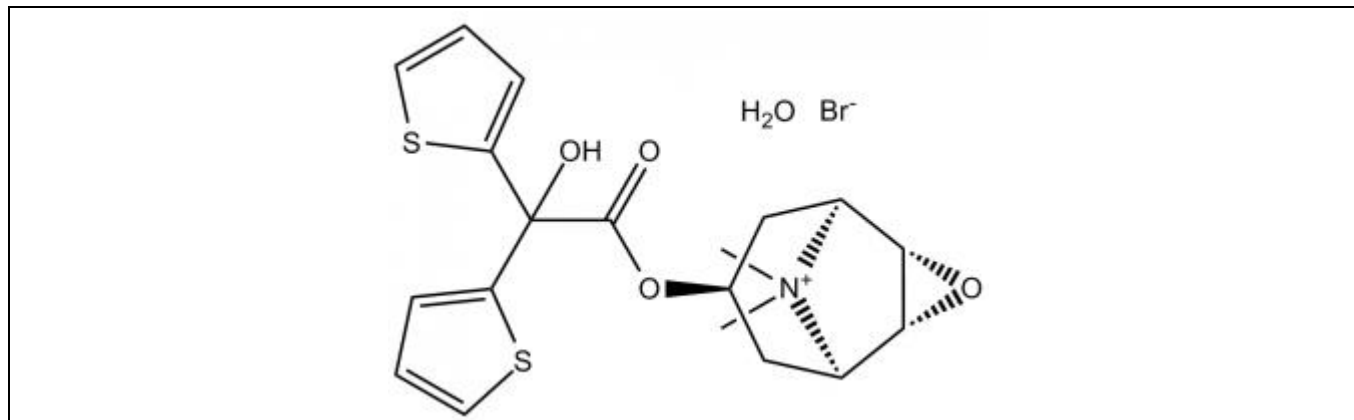
1. Physical and Chemical Properties

Appearance	Powder
Molecular Formula	C ₁₉ H ₂₂ NO ₄ S ₂ .Br.xH ₂ O
Molecular Weight	490.43
Purity	≥98.0%
CAS No.	139404-48-1

2. Analytical Data

HPLC	Indicates ≥98.0% purity
NMR	Consistent with structure
Mass Spectrum	Consistent with structure

3. Structure



4. Storage Condition

Short term storage (weeks)	0 - 4 °C under dry condition
Long term storage (months)	-20 °C under dry condition

Products are for research use only • Not for human or veterinary use