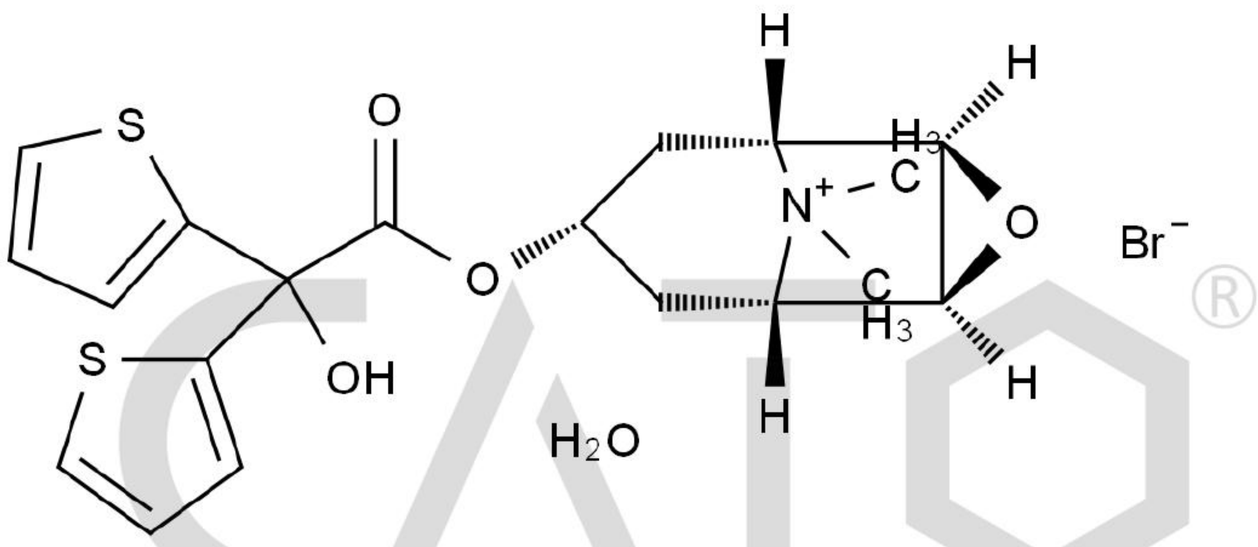
Certificate of Analysis

Reference Material & Standard

Product Name:	Tiotropium Bromide Monohydrate	**Catalogue Number:**	C4X-1764
Synonyms:	N/A	**Lot Number:**	0913-RH-0052
CAS Number:	139404-48-1	**Expiry Date:**	Sep 15, 2030
Molecular Formula:	$C_{19}H_{22}NO_4S_2$ Br H_2O	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	392.51 79.90 18.02	**Shipping Condition:**	Shipping at Room Temperature
Solubility:	Acetonitrile		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.815%
Water Content	Karl Fischer	3.3281%
Residue on Ignition	TGA	0.5427%
Assay	qNMR	99.3%

CATO Research Chemicals Inc.

Signature:

Prepared by: Alice Date: Sep 16, 2026

Reviewed by: Koi Date: Sep 17, 2026

Approved by General Manager: David Date: Sep 17, 2026

CATO Research Chemicals Inc.