

Certificate of Analysis

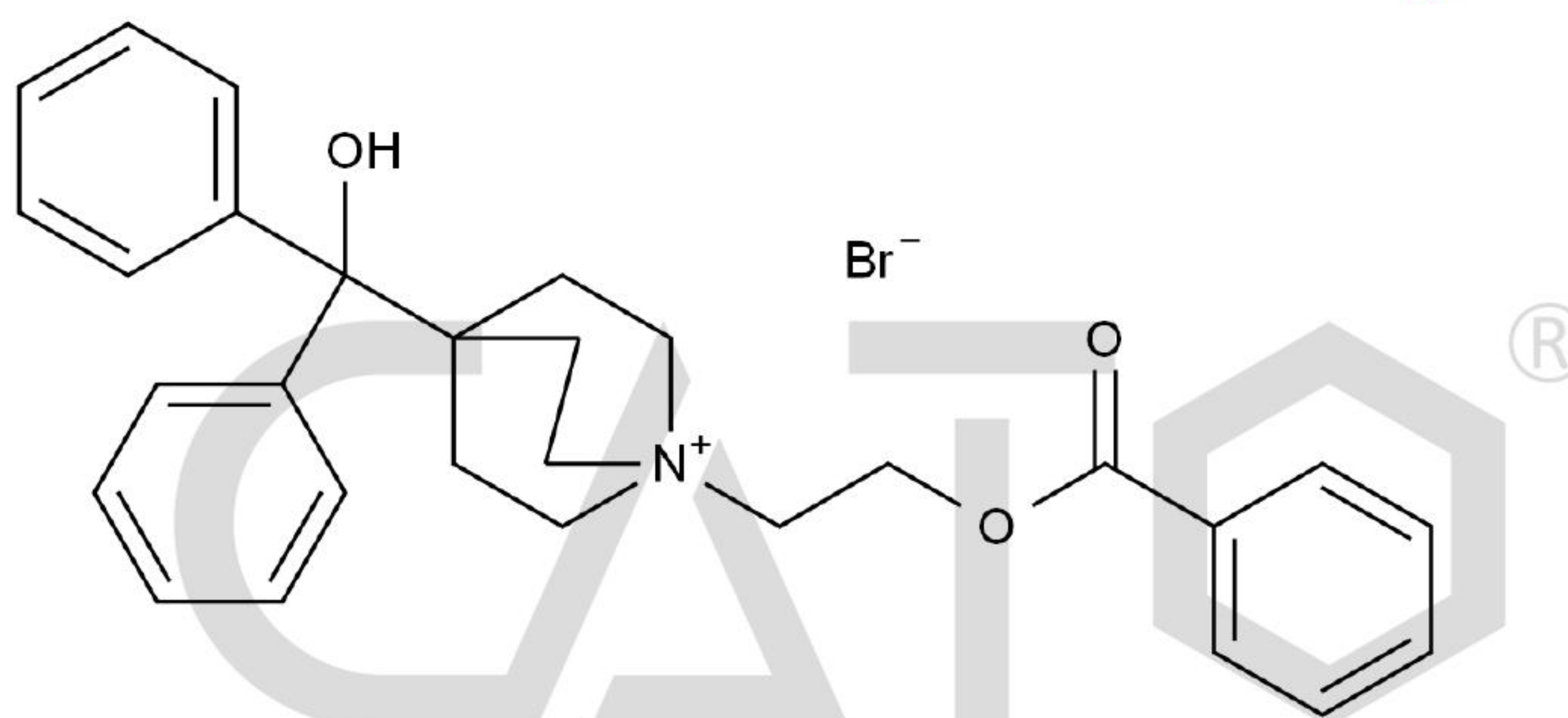
Reference Material & Standard

Product Name:	Umeclidinium Impurity 3	Catalogue Number:	C4X-13393
Synonyms:	N/A	Lot Number:	0520-RF-0082
CAS Number:	869113-45-1	Expiry Date:	Feb 03, 2030
Molecular Formula:	C ₂₉ H ₃₂ NO ₃ Br	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	442.57 79.90	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.196%
Water Content	Karl Fischer	0.07%
Residual Solvents	NMR	Not detected in NMR
Assay		99.1%

Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Water Content - Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Koi

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Feb 04, 2026

Date: Feb 04, 2026

Date: Feb 04, 2026



Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

Web: <https://www.cato-chem.com>

Page 1 of 5



Official WeChat