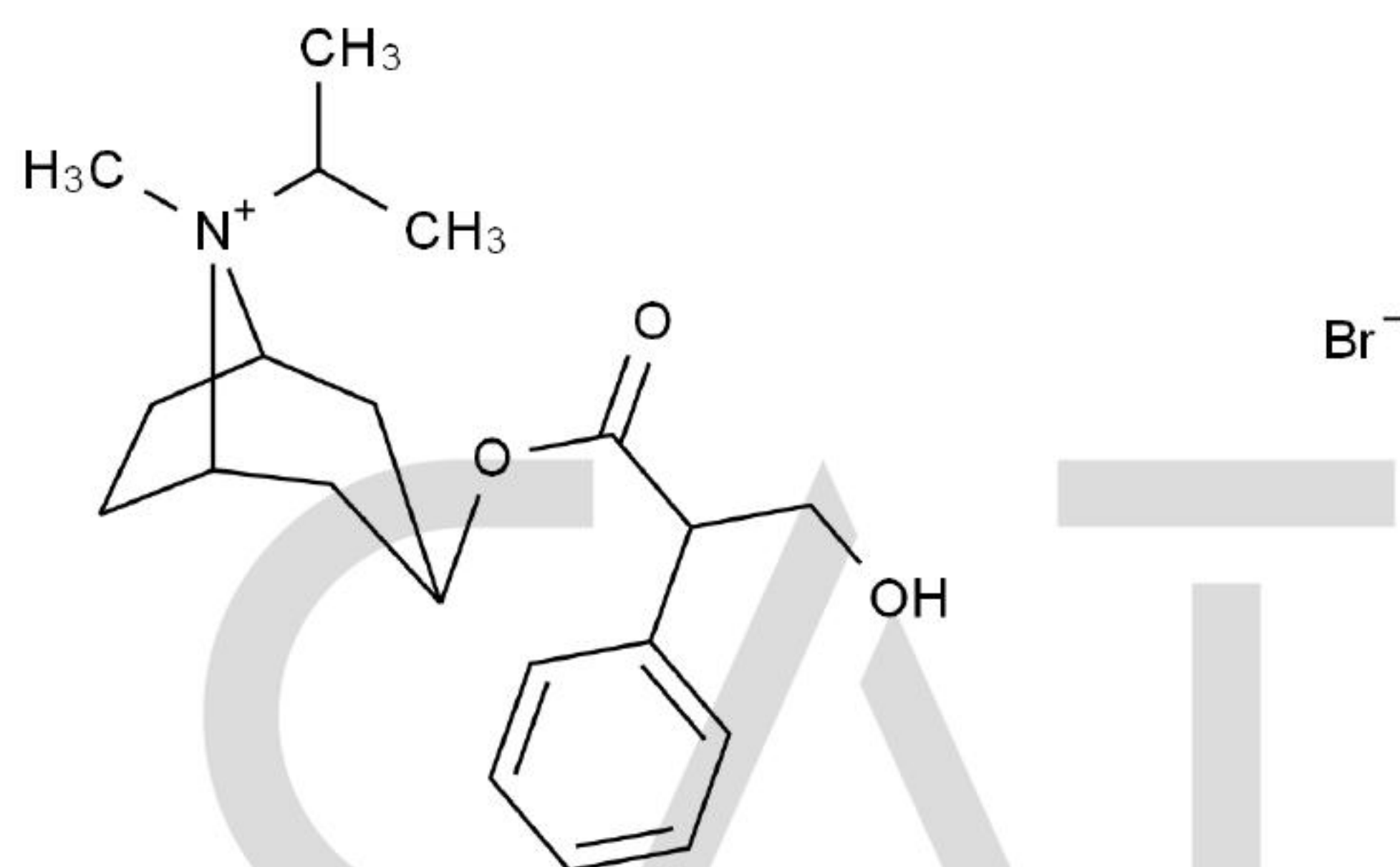


Certificate of Analysis

Reference Material & Standard

Product Name:	Ipratropium Bromide Impurity 33	Catalogue Number:	C4X-166533
Synonyms:	N/A	Lot Number:	1110-RG-0083
CAS Number:	2784-21-6	Expiry Date:	Nov 12, 2029
Molecular Formula:	C ₂₀ H ₃₀ NO ₃ Br	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	332.46 79.90	Shipping Condition:	Shipping at Room Temperature
Solubility:	Acetonitrile		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Pale Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	98.295%
Loss on Drying	TGA	3.0735%
Assay		95.3%

Comment:

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

Assay (%) = (100% - Loss on Drying) * Purity HPLC (%) / 100%

Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Nice

Reviewed by:

Koi

Approved by General Manager:

David

Date: Nov 13, 2025

Date: Nov 13, 2025

Date: Nov 13, 2025



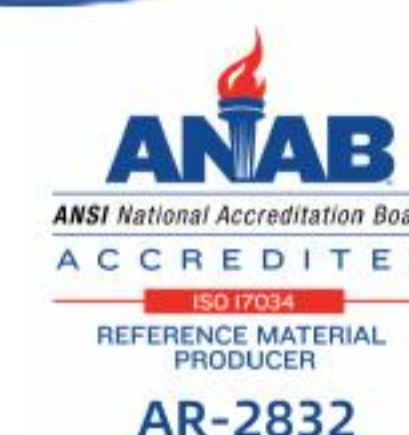
Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

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

Page 1 of 6



Official WeChat