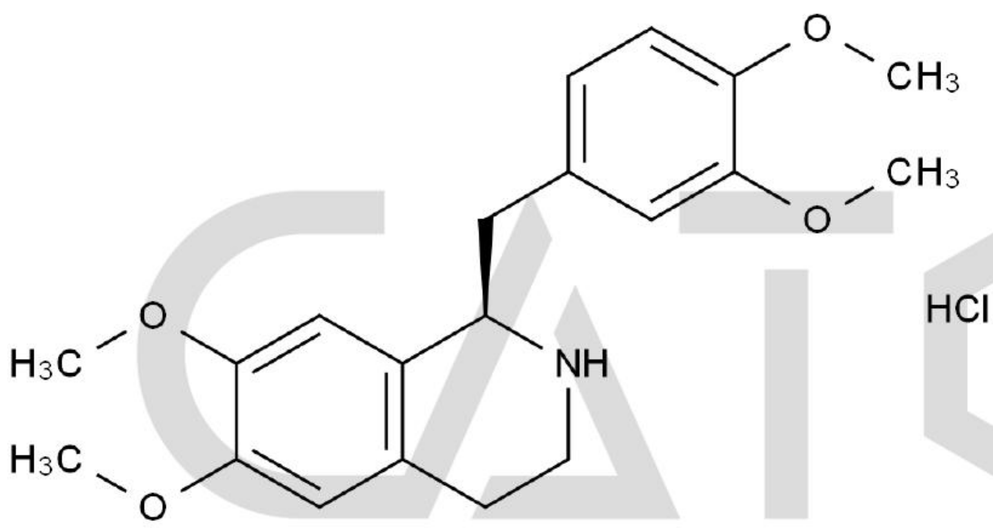
Certificate of Analysis

Reference Material & Standard

Product Name:	Atracurium Impurity 54 (R-Tetrahydropapaverine) HCl	**Catalogue Number:**	C4X-185054
Synonyms:	Tetrahydropapaverine;R-Tetrahydropapaverine HCl	**Lot Number:**	1-F-48B
CAS Number:	54417-53-7	**Expiry Date:**	Aug 31, 2030
Molecular Formula:	$C_{20}H_{25}NO_4$ HCl	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	343.42 36.46	**Shipping Condition:**	Shipping at Room Temperature
Solubility:	Acetonitrile	**Warning:**	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Grey Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.9%
Assay	qNMR	98.5%

CATO Research Chemicals Inc.

Signature:

Prepared by: Alice Date: Sep 01, 2026

Reviewed by: Koi Date: Sep 01, 2026

Approved by General Manager: David Date: Sep 01, 2026

CATO Research Chemicals Inc.