Certificate of Analysis

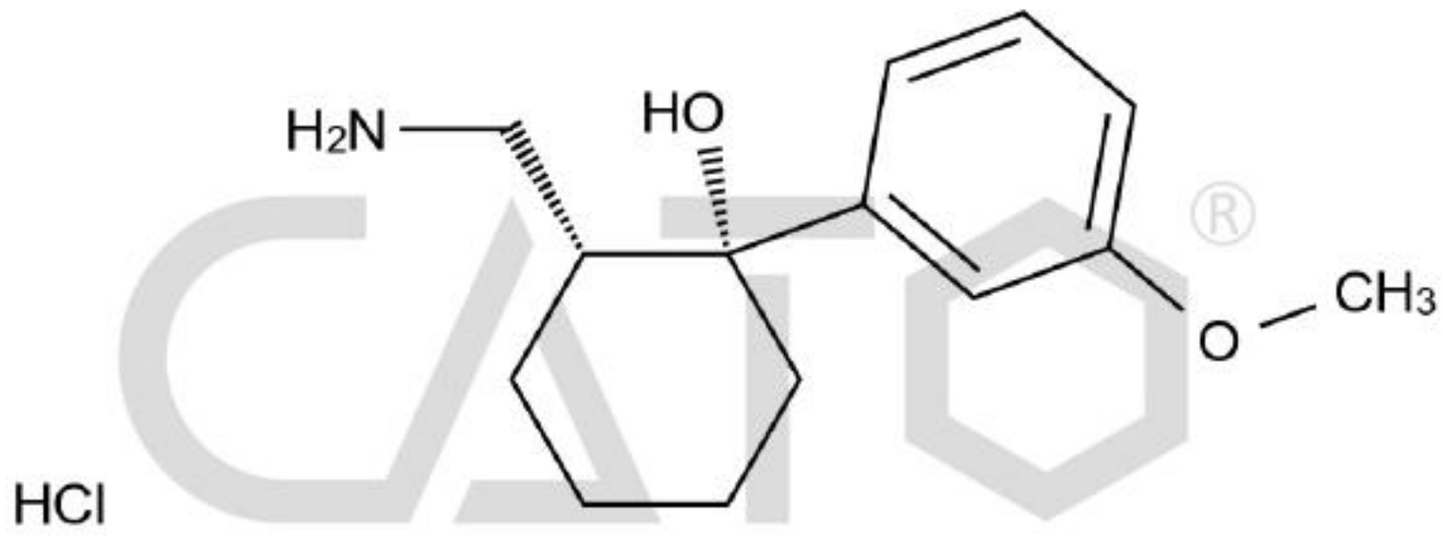
Reference Material & Standard

Product Name:	rac N-Bisdesmethyl Tramadol, Hydrochloride	**Catalogue Number:**	C1892374
Synonyms:	N/A	**Lot Number:**	0705-SA-7463
CAS Number:	541505-91-3	**Expiry Date:**	Jul 04, 29
Molecular Formula:	$C_{14}H_{21}NO_2$ HCl	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	235.32 36.46		

Warning:



Chemical Structure:



CATO Research Chemicals Inc.

Test Items	Method	Results
Appearance	Visual inspection	Solid
Identification:	LC&HNMR	Confirmed
Purity:	HPLC	98.024%

Signature:

Prepared by: Lisa Date: Jul 05, 25

Reviewed by: Yuki Date: Jul 05, 25

Approved by General Manager: David Date: Jul 05, 25

CATO Research Chemicals Inc.

Directions:

1. Intended use: This product is suitable for identification and quantification of the analyte(s), instrument calibration, method development and quality control in analytical and R&D applications. It is not intended for administration to humans or animals, and shall not be used to diagnose, treat or cure any diseases.

2. Minimum sample size: 1mg is recommended as the minimum sample size.

3. Metrological traceability: This product meets the requirements of ISO 17034 and is traceable to NMI through an unbroken chain of comparisons.

4. Instructions for handling and correct use: Handling in a well-ventilated place.

Document Version:

Revision No.	Date	Reason for Revision
01	Jul 05, 25	First release.

CATO Research Chemicals Inc.