

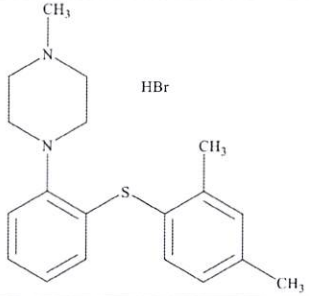
Certificate of Analysis

Certificate No.: 20231222029



Date: December 22, 2023

Retest date: December 19, 2026

Compound Name: <i>N</i> -Methyl Vortioxetine HBr	
Synonyms:	1-(2-((2,4-dimethylphenyl)thio)phenyl)-4-methylpiperazine, hydrogen bromide (1:1)
TLC Catalogue Number:	V-043070
CAS Number:	1293489-87-8 (free base)
Molecular Weight:	312.47 80.91
Molecular Formula:	C ₁₉ H ₂₄ N ₂ S. HBr
Source:	TLC Pharmaceutical Standards
Source Lot No.:	5823-094A1
Storage Conditions:	Store at 2-8 °C
Solubility:	Solution of DMSO and Methanol



Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	99.9%
Impurity (HPLC)	N/A	
Water Content (KF)	N/A	0.4%
Residual Solvents (NMR)	0.5% methanol	
Assay (%)	Not less than 90.0%	99.0%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		01/02/2024
Approved by:	Quality Assurance		01/02/2024

Attachments: HPLC, IR, MS and NMR spectra.