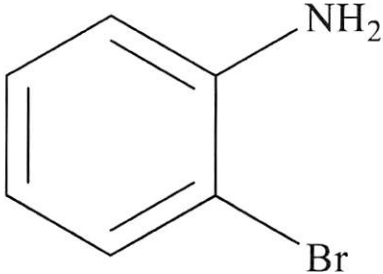


Certificate of Analysis



 Certificate No.: **20230625015**

Date: June 25, 2023

Retest date: June 17, 2026

Compound Name:	Vortioxetine Impurity 61	
Synonyms:	2-bromoaniline	
TLC Catalogue Number:	V-043071	
CAS Number:	615-36-1	
Molecular Weight:	172.03	
Molecular Formula:	C ₆ H ₆ BrN	
Source:	TLC Pharmaceutical Standards	
Source Lot No.:	5635-003A1	
Storage Conditions:	Store at 2-8 °C	
Solubility:	Methanol, DMSO	

Test Description	Specifications	Results
Visual Description	Brown liquid (low M.P.)	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%	99.6%
Impurity (HPLC)	RT 2.41, 0.11%; RT 7.52, 0.24%	
Residual Solvents (NMR)	No residual solvent	
Assay (qNMR)	Not less than 90.0%	98.3%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		06 / 27 / 2023
Approved by:	Quality Assurance		06 / 27 / 2023

Attachments: HPLC, IR, MS and NMR spectra.