

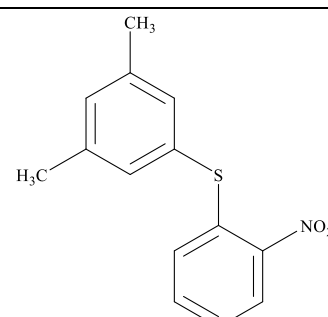
Certificate of Analysis

Certificate No.: 20211228009

Date: December 28, 2021

Retest date: December 24, 2024

Compound Name: Vortioxetine Impurity 34	
Synonyms:	(3,5-dimethylphenyl)(2-nitrophenyl)sulfane
TLC Catalogue Number:	V-043039
CAS Number:	640767-43-7
Molecular Weight:	259.32
Molecular Formula:	C ₁₄ H ₁₃ NO ₂ S
Source:	TLC Pharmaceutical Standards
Source Lot No.:	4751-082A1
Storage Conditions:	Store at 2-8 °C
Solubility:	Methanol, DMSO



Test Description	Specifications	Results
Visual Description	Yellow 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%	99.6%
Impurity (HPLC)	RT 9.15, 0.10%; RT 17.40, 0.14%	
Water Content (KF)	N/A	0.1%
Residual Solvents (NMR)	0.4% methanol and 0.3% dichloromethane	
Assay (%)	Not less than 90.0%	98.8%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		
Approved by:	Quality Assurance		

Attachments: HPLC, IR, MS and NMR spectra.