

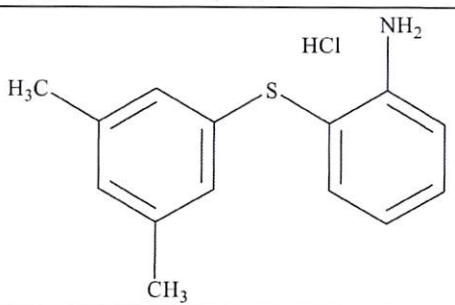


## Certificate of Analysis



Certificate No.: 20241204025

Date: December 4, 2024

Retest date: December 3, 2027

<b>Compound Name:</b>	<b>Vortioxetine Impurity 35 HCl</b>	
<b>Synonyms:</b>	2-((3,5-dimethylphenyl)thio)aniline, hydrochloride (1:1)	
<b>TLC Catalogue Number:</b>	V-043040	
<b>CAS Number:</b>	640767-44-8 (free base)	
<b>Molecular Weight:</b>	229.34 36.46	
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>15</sub> NS. HCl	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	4751-085A3	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Methanol, DMSO	

Test Description	Specifications	Results
<b>Visual Description</b>	White to off-white solid	<b>Conforms</b>
<b>Identification</b>		
<b>IR</b>	Conforms to structure	<b>Conforms</b>
<b>MS</b>	Conforms to structure	<b>Conforms</b>
<b><sup>1</sup>H NMR</b>	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>99.5%</b>
<b>Impurity (HPLC)</b>	RT 11.59, 0.26%	
<b>Water Content (KF)</b>	N/A	<b>0.1%</b>
<b>Residual Solvents (NMR)</b>	0.3% dichloromethane	
<b>Assay (%)</b>	Not less than 90.0%	<b>99.1%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		12/05/2024
Approved by:	Quality Assurance		12/05/2024

Attachments: HPLC, IR, MS and NMR spectra.