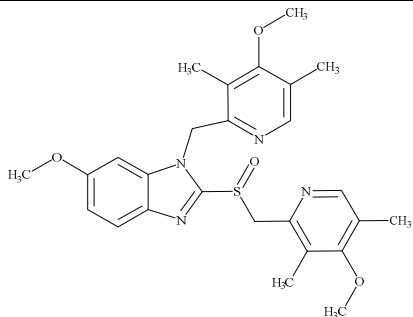


# Certificate of Analysis

Certificate No.: 20191112004

Date: November 12, 2019

Retest date: November 11, 2022

<b>Compound Name:</b>	<b>Esomeprazole Impurity 12</b>	
<b>Synonyms:</b>	6-methoxy-1-((4-methoxy-3,5-dimethylpyridin-2-yl)methyl)-2-(((4-methoxy-3,5-dimethylpyridin-2-yl)methyl)sulfinyl)-1H-benzo[d]imidazole	
<b>TLC Catalogue Number:</b>	O-0262	
<b>CAS Number:</b>	N/A	
<b>Molecular Weight:</b>	494.61	
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>30</sub> N <sub>4</sub> O <sub>4</sub> S	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	2485-001A4	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Methanol	

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>99.1%</b>
<b>Impurity (HPLC)</b>	RT 10.26, 0.64%; RT 13.92, 0.26%	
<b>Water Content (KF)</b>	N/A	<b>0.2%</b>
<b>Residual Solvents (NMR)</b>	No residual solvent	
<b>Assay (%)</b>	Not less than 90.0%	<b>98.9%</b>
<b>Recommendation:</b>	<b>Released.</b>	

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

**Attachments:** HPLC, IR, MS and NMR spectra.