

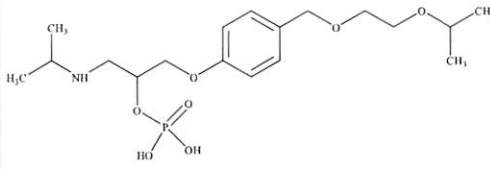
## Certificate of Analysis

Certificate No.: **20250710001**



Date: July 10, 2025

Retest date: July 7, 2028

<b>Compound Name:</b> Bisoprolol Impurity 11	
<b>Synonyms:</b>	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-yl dihydrogen phosphate
<b>TLC Catalogue Number:</b>	B-0934
<b>CAS Number:</b>	N/A
<b>Alternate CAS Number:</b>	N/A
<b>Molecular Weight:</b>	405.43
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>32</sub> NO <sub>7</sub> P
<b>Source:</b>	TLC Pharmaceutical Standards
<b>Source Lot No.:</b>	6917-065A4
<b>Storage Conditions:</b>	Hygroscopic, store at 2-8 °C
<b>Solubility:</b>	Methanol, DMSO, Acetonitrile, Ethanol



Test Description	Specifications	Results
<b>Visual Description</b>	White to off-white solid	<b>Conforms</b>
<b>Identification</b>		
IR	Conforms to structure	<b>Conforms</b>
MS	Conforms to structure	<b>Conforms</b>
<sup>1</sup> H NMR	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>99.1%</b>
<b>Impurity (HPLC)</b>	RT 4.92, 0.53%; RT 11.91, 0.33%	
<b>Water Content (KF)</b>	N/A	<b>1.2%</b>
<b>Residual Solvents (NMR)</b>	No residual solvent	
<b>Assay (%)</b>	Not less than 90.0%	<b>97.9%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		07/11/2025
Approved by:	Quality Assurance		07/11/2025

**Attachments:** Peak Attribution Table, HPLC, IR, MS and NMR spectra.