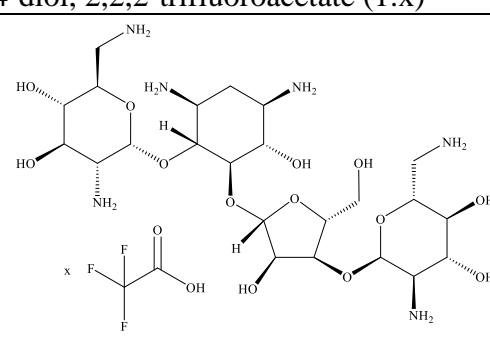


# Certificate of Analysis

 Certificate No.: **20210108004**

Date: January 8, 2021

Retest date: December 28, 2023

<b>Compound Name:</b>	<b>Neomycin EP Impurity C (Neomycin C) TFA Salt</b>	
<b>Synonyms:</b>	(2R,3S,4R,5R,6R)-5-amino-2-(aminomethyl)-6-(((2R,3S,4R,5S)-5-(((1R,2R,3S,5R,6S)-3,5-diamino-2-(((2R,3R,4R,5S,6R)-3-amino-6-(aminomethyl)-4,5-dihydroxytetrahydro-2H-pyran-2-yl)oxy)-6-hydroxycyclohexyl)oxy)-4-hydroxy-2-(hydroxymethyl)tetrahydrofuran-3-yl)oxy)tetrahydro-2H-pyran-3,4-diol, 2,2,2-trifluoroacetate (1:x)	
<b>TLC Catalogue Number:</b>	N-080005	
<b>CAS Number:</b>	66-86-4 (free base)	
<b>Molecular Weight:</b>	614.65 x*114.02	
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>46</sub> N <sub>6</sub> O <sub>13</sub> . x C <sub>2</sub> HF <sub>3</sub> O <sub>2</sub>	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	C0027-030A2	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Water, DMSO	

Test Description	Specifications	Results
<b>Visual Description</b>	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><sup>19</sup>F NMR</b>	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>97.0%</b>
<b>Impurity (HPLC)</b>	RT 2.70, 0.26%; RT 3.03, 0.40%; RT 3.39, 2.32%	
<b>Optical Rotation</b>	N/A	[α] <sub>D</sub> <sup>25.0</sup> (c=0.53, H <sub>2</sub> O): <b>+66.3°</b>
<b>Residual Solvents (NMR)</b>	0.5% acetonitrile	
<b>Assay (qNMR of Neomycin EP Impurity C (Neomycin C))</b>	Not less than 50.0%	<b>55.3%</b>
<b>Recommendation:</b>	<b>Released.</b> The compound contains 34.0% TFA Salt based on <sup>19</sup> F-qNMR.	

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

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