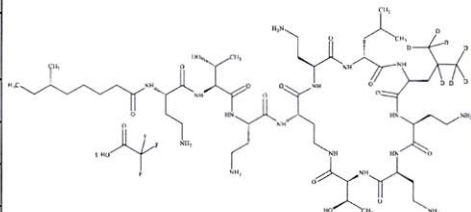


Certificate of Analysis



Certificate No.: **20260601002**

Date: June 1, 2026

Retest date: May 26, 2029

Compound Name:	Colistin A-d₇ Pentatrifluoroacetate (Polymyxin E1-d₇ Pentatrifluoroacetate)	
Synonyms:	(S)-N-((S)-4-amino-1-(((2S,3R)-1-(((S)-4-amino-1-oxo-1-(((3S,6S,9S,12S,15R,18S,21S)-6,9,18-tris(2-aminoethyl)-3-((R)-1-hydroxyethyl)-15-isobutyl-12-(2-(methyl-d ₃)propyl-2,3,3-d ₄)-2,5,8,11,14,17,20-heptaoxo-1,4,7,10,13,16,19-heptaazacyclotricosan-21-yl)amino)butan-2-yl)amino)-3-hydroxy-1-oxobutan-2-yl)amino)-1-oxobutan-2-yl)-6-methyloctanamide, 2,2,2-trifluoroacetic acid (1:5)	
TLC Catalogue Number:	PC-321011	
CAS Number:	N/A	
Alternate CAS Number:	7722-44-3 (non-labelled, free base)	
Molecular Weight:	1176.52 5*114.02	
Molecular Formula:	C ₅₃ H ₉₃ D ₇ N ₁₆ O ₁₃ . 5 C ₂ HF ₃ O ₂	
Source:	TLC Pharmaceutical Standards	
Source Lot No.:	7444-052A3	
Storage Conditions:	Store at 2-8 °C	
Solubility:	Methanol, DMSO, Water	

Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
¹⁹ F NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	97.8%
Impurity (HPLC)	RT 7.52, 0.49%; RT 13.29, 0.43%; RT 15.27, 0.54%	
Isotopic Enrichment	Not less than 98.0%	99.8%
Water Content (KF)	N/A	1.8%
Residual Solvents (NMR)	No residual solvent	
Assay (%)	Not less than 90.0%	96.0%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		06/01/2026
Approved by:	Quality Assurance		06/01/2026

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