

# Certificate of Analysis

## Product Information

**Product Name:** LL-37 (Human Cathelicidin Antimicrobial Peptide)  
**CAS Number:** 2311-920-2 (reference only — varies by supplier)  
**Molecular Formula:** C<sub>204</sub>H<sub>345</sub>N<sub>51</sub>O<sub>61</sub>  
**Molecular Weight:** 4493.3 g/mol  
**Appearance:** White to off-white lyophilized powder

## Batch Information

**Batch / Lot Number:** LL37-2025-001  
**Quantity:** 100 mg  
**Date of Manufacture:** 08-Aug-2025  
**Retest Date:** 08-Aug-2027  
**Storage Conditions:** -20 °C, dry and protected from light

## Analytical Results

Test	Specification	Result	Method
Identity (Mass Spectrometry)	Consistent with theoretical mass of 4493.3 Da	4493.5 Da (M+H) <sup>+</sup>	ESI-MS
Purity (HPLC)	≥ 98.0 % (by area)	98.7 %	RP-HPLC
Sequence Confirmation	As per LL-37 sequence	Confirmed	Edman degradation / MS-MS
Appearance	White to off-white lyophilized powder	White powder	Visual
Solubility	Soluble in sterile water (≥ 1 mg/mL)	Pass	Visual
Residual Solvent (if applicable)	≤ 0.5 %	< 0.1 %	GC
Water Content (Karl Fischer)	≤ 5.0 %	2.6 %	KF titration
Acetate Content	Report only	4.8 %	Ion chromatography
Peptide Content	≥ 70 %	75 %	Nitrogen analysis
Endotoxin	< 0.25 EU/mg	0.09 EU/mg	LAL test
Microbial Limit Test	< 100 CFU/g, no pathogens	Pass	USP <61>/<62>

## Compliance Statement

The above batch of **LL-37** complies with the stated specifications.  
This batch of **LL-37** meets all specified analytical and microbiological criteria and is suitable for **research use only**. Manufactured and tested under controlled conditions to ensure consistency, purity, and integrity.