

# 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
<b>Identity (Mass Spectrometry)</b>	Consistent with theoretical mass of 4493.3 Da	4493.5 Da (M+H) <sup>+</sup>	ESI-MS
<b>Purity (HPLC)</b>	≥ 98.0 % (by area)	98.7 %	RP-HPLC
<b>Sequence Confirmation</b>	As per LL-37 sequence	Confirmed	Edman degradation / MS-MS
<b>Appearance</b>	White to off-white lyophilized powder	White powder	Visual
<b>Solubility</b>	Soluble in sterile water (≥ 1 mg/mL)	Pass	Visual
<b>Residual Solvent (if applicable)</b>	≤ 0.5 %	< 0.1 %	GC
<b>Water Content (Karl Fischer)</b>	≤ 5.0 %	2.6 %	KF titration
<b>Acetate Content</b>	Report only	4.8 %	Ion chromatography
<b>Peptide Content</b>	≥ 70 %	75 %	Nitrogen analysis
<b>Endotoxin</b>	< 0.25 EU/mg	0.09 EU/mg	LAL test
<b>Microbial Limit Test</b>	< 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.