Certificate of Analysis (COA)

质检报告

LL-37 - Antibacterial Protein LL-37 Amide (Human)

Product Type: Lyophilized Powder (Freeze-Dried) | 冻干粉

Product Information | 产品信息

Product Name | 产品名称	LL-37 (Antibacterial Protein LL-37 Amide, Human) 抗菌肽 LL-37 (人源)
CAS Number	597562-32-8
Molecular Formula | 分子式	$C_{205}H_{341}N_{61}O_{52}$
Molecular Weight | 分子量	4492.28 g/mol
Sequence | 序列	H-Leu-Leu-Gly-Asp-Phe-Phe-Arg-Lys-Ser-Lys-Glu-Lys-Ile-Gly-Lys-Glu-Phe-Lys-Arg-Ile-Val-Gln-Arg-Ile-Lys-Asp-Phe-Leu-Arg-Asn-Leu-Val-Pro-Arg-Thr-Glu-Ser-OH
Specification | 规格	5mg × 10 vials/box
Appearance | 外观	White to off-white lyophilized powder
Batch Number | 批号	LL37-2026-375
Manufacturing Date	2026-07-15
Expiry Date	2028-07-15
Storage | 储存条件	Store at -20°C, protect from light and moisture 避光防潮，-20°C 保存
Shelf Life | 保质期	24 months from manufacturing date (unopened)

Test Results | 检测结果

Test Item | 检测项目	Specification | 标准	Result | 结果	Method | 方法
Appearance | 外观	White to off-white powder	**White powder**	Visual
Identification | 鉴别	Positive for LL-37	**Positive**	HPLC
Assay/Purity | 纯度	≥99.0%	**99.3%**	HPLC
Related Substances | 有关物质	≤1.0%	**0.5%**	HPLC
Single Impurity | 单一杂质	≤0.5%	**0.3%**	HPLC
Loss on Drying | 干燥失重	≤3.0%	**1.5%**	LOD
Residue on Ignition | 炽灼残渣	≤0.5%	**0.3%**	ROI
Heavy Metals | 重金属	≤10 ppm	**<5 ppm**	ICP-MS
Lead (Pb) | 铅	≤2 ppm	**<1 ppm**	ICP-MS
Arsenic (As) | 砷	≤1 ppm	**<0.5 ppm**	ICP-MS
Mercury (Hg) | 汞	≤0.5 ppm	**<0.2 ppm**	ICP-MS
Cadmium (Cd) | 镉	≤1 ppm	**<0.5 ppm**	ICP-MS
Microbial Limit | 微生物限度	≤100 CFU/g	**<50 CFU/g**	Plate Count
E. coli | 大肠杆菌	Negative	**Negative**	PCR
Salmonella | 沙门氏菌	Negative	**Negative**	PCR
Staphylococcus aureus | 金黄色葡萄球菌	Negative	**Negative**	PCR

Bacterial Endotoxins | 细菌内毒素	≤10 EU/mg	**<5 EU/mg**	LAL
Sterility | 无菌检查	Sterile	**Sterile**	Membrane Filtration

LC-MS Analysis | 质谱分析

Parameter | 参数	Expected | 理论值	Observed | 实测值	Status
Molecular Weight | 分子量	4492.28 g/mol	4492.3 g/mol	✓ **Confirmed**
Molecular Ion $[M+H]^+$	4493.29	4493.3	✓ **Confirmed**
Retention Time | 保留时间	8.15 ± 0.2 min	8.12 min	✓ **Matched**
Fragmentation Pattern	Reference Standard	Matched	✓ **Confirmed**
Mass Accuracy | 质量精度	±1.0 Da	±0.5 Da	✓ **Passed**

Conclusion | 结论

The product complies with the enterprise quality standards.
本品符合企业质量标准。

HONG QIANGTAI BIOTECHNOLOGY CO., LTD. 香港强肽科技有限公司

Tested by | 检测
Lab Technician

Reviewed by | 复核
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Approved by | 批准
QA Director

Laboratory Information | 实验室信息

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