



CERTIFICATE OF ANALYSIS

Issued by an ISO/IEC 17025-accredited laboratory · raw data appended (page 2)

PASS

QC released for dispatch



Scan to verify

Epitalon — 10mg

Epithalon

1. PRODUCT IDENTIFICATION

Synonym	Epithalon	Label claim	10mg
Sequence / structure	Ala-Glu-Asp-Gly	Lot / Batch	ZX260512-646 / B91069
Mol. formula	C14H22N4O9	Manufacture date	25 May 2026
Mol. weight	390.35 g/mol	Date of analysis	28 May 2026
CAS number	307297-39-8	Storage	-20 °C, dark, desiccated
Salt form	Acetate salt		

2. ANALYTICAL TEST RESULTS

Test	Method	Specification	Result	Verdict
Appearance	Visual	White/off-white powder	White to off-white lyophilized powder	PASS
Identity (ESI-MS)	LC-MS	Matches 390.35 Da	390.35 Da (Δ 0 ppm)	PASS
Purity	RP-HPLC, UV 220 nm	\geq 98.0% area	99.30%	PASS
Related substances	RP-HPLC	Single \leq 1.0 / Total \leq 2.0%	0.33 / 0.70%	PASS
Water content	Karl Fischer (USP <921>)	\leq 8.0%	2.4%	PASS
Counter-ion: acetate	Ion chromatography	Report (3.0–15.0%)	6.8%	PASS
Net peptide content	Amino-acid analysis	\geq 80.0%	90.0%	PASS
Bacterial endotoxin	LAL kinetic (USP <85>)	< 5.0 EU/mg	0.05 EU/mg	PASS
Heavy metals	ICP-MS (ICH Q3D)	Conforms	Conforms	PASS

CONCLUSION

All tested parameters CONFORM to the acceptance specifications. The batch is of high chromatographic purity (\geq 98%) with an impurity profile, identity and residual/contaminant results meeting pharmaceutical-grade quality requirements. Material released. Supporting RP-HPLC chromatogram and ESI-MS spectrum are appended on page 2.

DWM.

Dr. Wang Mei

Analyst · 28 May 2026 · Zhongxi Research Institute

DFH.

Dr. Fang Hong (QC Manager)

Approved by · 28 May 2026 · Zhongxi Research Institute

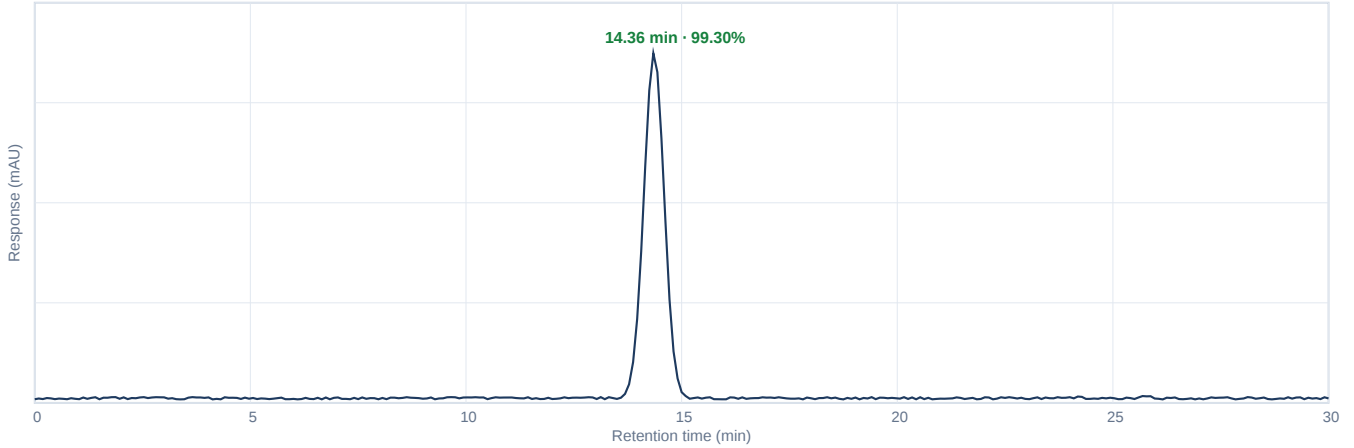


APPENDIX — ANALYTICAL RAW DATA

Epitalon 10mg · Lot ZX260512-646 · Cert. ZXR-COA-2026-73883

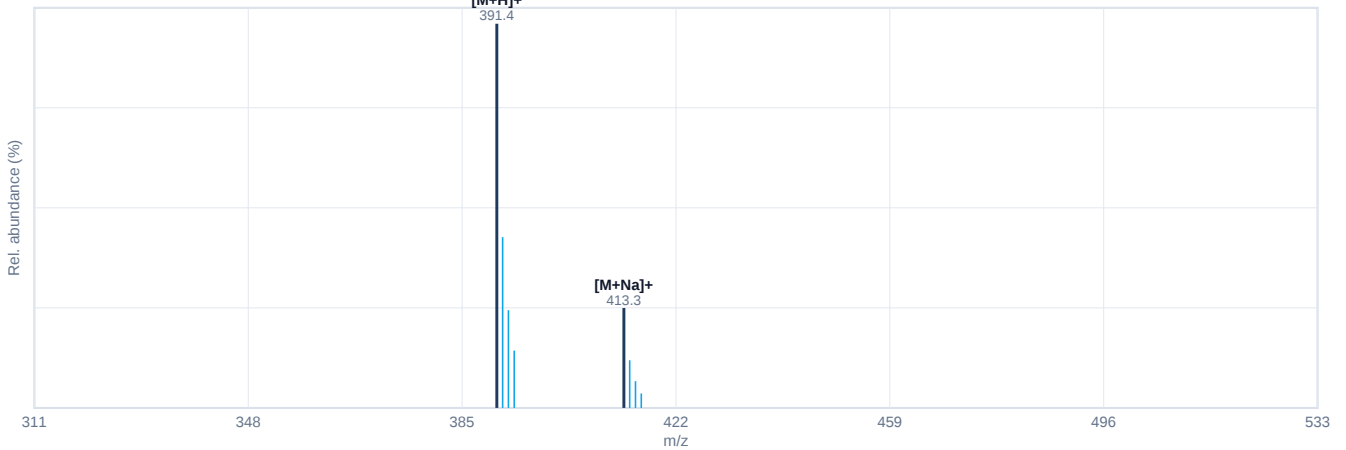


Figure 1. RP-HPLC Chromatogram (UV 220 nm)



Peak #	RT (min)	Area ($\mu\text{V}\cdot\text{s}$)	Area %	Assignment
1	14.36	896768	99.30	Main (target)
2	25.79	3037	0.33	Impurity / related substance
3	24.08	2087	0.23	Impurity / related substance
4	25.65	1155	0.11	Impurity / related substance
5	21.03	203	0.02	Impurity / related substance

Figure 2. ESI-MS Spectrum (positive ion mode)



Interpretation

Identity confirmed by ESI-MS. Observed ions $[M+H]^+$ 391.4, $[M+Na]^+$ 413.3 deconvolute to a neutral monoisotopic-average mass of 390.35 Da (theoretical 390.35 Da; mass error 0 ppm), consistent with Epitalon. No co-eluting species above 0.5% indicative of misidentification.

Methods — RP-HPLC: Agilent 1260 Infinity II; Zorbax SB-C18 4.6×250 mm, 5 μm ; A: 0.1% TFA in water, B: 0.1% TFA in MeCN; 10–70% B over 30 min; 1.0 mL/min; 25 °C; 20 μL injection. MS: AB Sciex TripleTOF, ESI+, capillary 4.5 kV, deconvolution by Bio Tool Kit. KF: Metrohm 901. IC: Thermo Dionex ICS-6000. ICP-MS: Agilent 7900.