

CERTIFICATE OF ANALYSIS

COA #: **SD20260924_018_EPI**

SAMPLE INFORMATION

Client	Zentra Brands Limited	Accession #	SD20260924_018
Compound	Epitalon	Date Received	09/24/2026
Molecular Formula	C14H22N4O9	Date Reported	09/27/2026
Appearance	White lyophilized powder	Labeled Quantity	50mg
Sample Form	Lyophilized Vial	Lot / Batch #	ZC0049
Storage	Room Temp	CAS Number	307297-39-8
Cap Color	Purple		



All Chemical Analysis Performed by LC-MS/MS

ANALYTICAL RESULTS

Test / Analysis	Method	Specification	Result	Status
Identity (Mass Confirmation)	LC-MS/MS	Matches reference mass	Epitalon	Pass
Purity	LC-MS/MS	≥ 95.0%	99.46 %	Pass
Net Peptide Content	LC-MS/MS	Report value	53.09 mg	Pass
Observed Molecular Mass	LC-MS	Within ± 1.0 Da	392 [M+H] ⁺	Pass
Theoretical Molecular Mass	Reference	—	390.35	Pass
Related Substances / Impurities	LC-MS/MS	Report value	Not Detected	Pass
Residual Solvents	LC-MS/MS	Report value	Not Detected	Pass

John Humes, MS. **John Humes, MS.**
Analyzed by · Laboratory Analyst · 09/27/2026

Chetan Soni, PhD. **Chetan Soni, PhD.**
Approved by · Laboratory Director · 09/28/2026

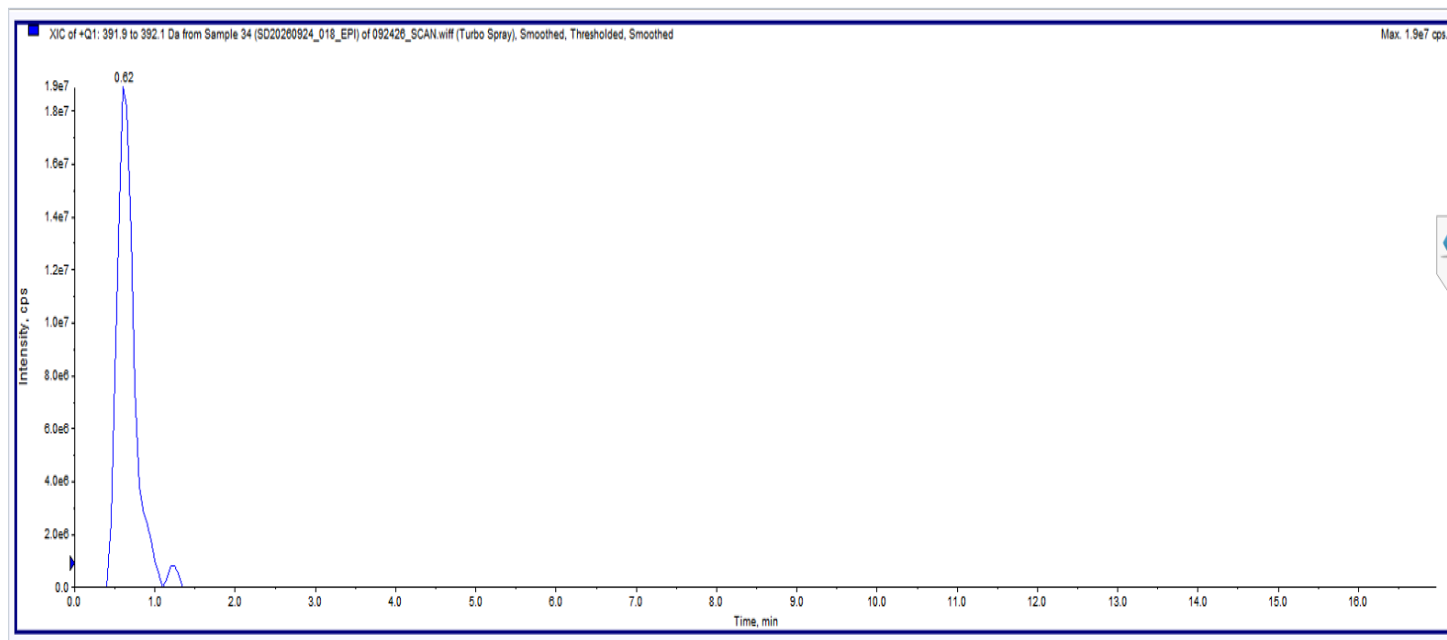
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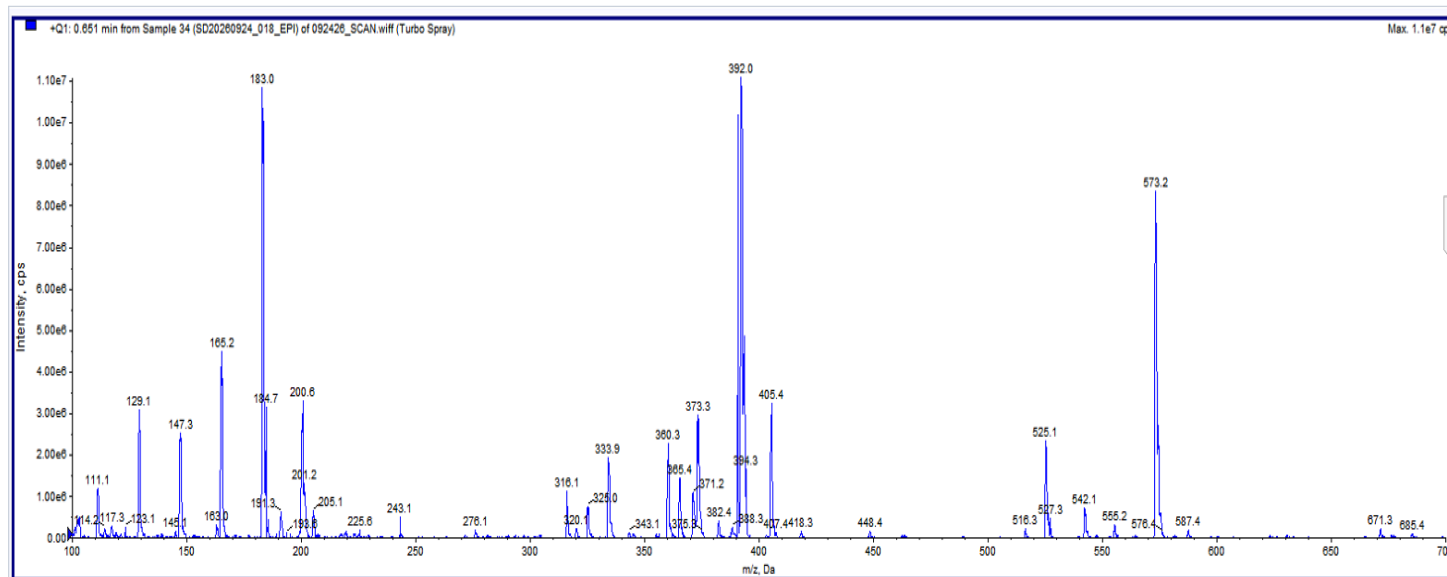
ANALYTICAL DATA

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CHROMATOGRAM



MASS SPECTRUM (LC-MS)



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ANALYTICAL INTERPRETATION

Chromatogram

Retention Time Match

Mass Spectrum (LC-MS)

Analyte: Epitalon (Epithalon / AEDG)

Sample ID: SD20260924_018_EPI

Method: LC-MS, positive-mode Q1 full scan, TurboSpray ionization

Retention Time: 0.651min

Q1 scan interpretation

The Q1 full-scan spectrum at 0.651min shows a low-mass peptide profile consistent with Epitalon (MW $\approx$ 390Da). The spectrum is dominated by the protonated molecular ion and its adducts, with additional fragment and dimer ions typical of a small, highly polar tetrapeptide eluting near the void.

Observed charge states and supporting ions

183.0m/z – fragment ion, characteristic low-mass peptide fragment

392.0m/z – [M+H], dominant monoisotopic precursor ion confirming intact Epitalon

405.4m/z – [M+Na], sodium adduct

525.1, 542.1m/z – higher-mass adduct/cluster ions, consistent with solvent/metal association

573.2m/z – [2M+H], dimeric species

671.3, 685.4m/z – higher-order clusters/dimers, minor but supportive of peptide presence

These ions collectively represent the expected charge-state and adduct pattern for Epitalon under positive ESI conditions.

Identity conclusion

Identity by LC-MS Q1 full scan – Epitalon confirmed.

The observed monoisotopic precursor at 392.0m/z ([M+H]), along with sodium adducts (405.4m/z) and dimeric species (573.2m/z), matches the validated mass profile for Epitalon. The spectrum shows no significant extraneous peptide envelopes or degradation products, supporting the identity and integrity of the material.

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