

PRODUCT IDENTIFICATION STRIP

| Product                  | CAS        | Formula                                                         | MW        | CoA #     | Lot      | QC   | Date       | Purity |
|--------------------------|------------|-----------------------------------------------------------------|-----------|-----------|----------|------|------------|--------|
| Thymalin(Thymulin / STF) | 63958-90-7 | C <sub>33</sub> H <sub>54</sub> N <sub>12</sub> O <sub>15</sub> | 858.86 Da | BPL872999 | 38209872 | #999 | 29/08/2026 | 99.2%  |

CONTROL TEST RESULTS

Identity

| Test                      | Method                 | Specification                         | Result                       | Status |
|---------------------------|------------------------|---------------------------------------|------------------------------|--------|
| Molecular Mass (ESI-HRMS) | ESI+ Q-TOF · full scan | MW 858.86 Da · m <sub>Δ</sub> < 5 ppm | [M+H] <sup>+</sup> 859.9 m/z | PASS   |
| Amino Acid Sequence       | MS/MS fragmentation    | pGlu-AKS-QGGG-N (9 AA)                | Confirmed                    | PASS   |
| N-terminal pGlu (blocked) | ESI-MS · b-ion series  | Cyclic pyroglutamate                  | Confirmed                    | PASS   |
| CAS Consistency           | Cross-reference DB     | 63958-90-7 · C33H54N12O15             | Match                        | PASS   |

Purity

| Test                      | Method              | Specification                | Result       | Status |
|---------------------------|---------------------|------------------------------|--------------|--------|
| Overall Purity (RP-UHPLC) | UV 214 nm · C18     | ≥ 99.0% area                 | 99.2%        | PASS   |
| Total Related Substances  | RP-UHPLC UV 214 nm  | 1.0% ≤                       | 0.8%         | PASS   |
| Net Peptide Content       | UHPLC-MS · nitrogen | 98.0% ≥                      | 99.2%        | PASS   |
| Excipients / Fillers      | UHPLC-MS            | Not detected (mannitol-free) | Not detected | PASS   |

Mass Spectrometry

| Test                               | Method            | Specification                       | Result    | Status |
|------------------------------------|-------------------|-------------------------------------|-----------|--------|
| z=1 [M+H] <sup>+</sup> — base peak | ESI+ HRMS         | 859.87 m/z · m <sub>Δ</sub> < 5 ppm | 859.9 m/z | PASS   |
| z=2 [M+2H] <sup>2+</sup> — minor   | ESI+ HRMS         | 430.44 m/z                          | 430.4 m/z | PASS   |
| Isotope cluster (z=1)              | ESI+ HRMS         | M+1 ~62% · M+2 ~12%                 | Confirmed | PASS   |
| Mass accuracy                      | Q-TOF · lock mass | Δm < 5 ppm                          | < 2 ppm   | PASS   |

Chromatography

| Test                      | Method                   | Specification                 | Result           | Status |
|---------------------------|--------------------------|-------------------------------|------------------|--------|
| Retention Time (RP-UHPLC) | C18 · 5-99% ACN · 25 min | 4.8 min (hydrophilic peptide) | 4.8 min          | PASS   |
| UV Channel                | DAD detector             | 214 nm only (no Tyr/Phe/Trp)  | 214 nm confirmed | PASS   |
| Peak Symmetry             | RP-UHPLC                 | Tailing factor ≤ 2.0          | TF = 1.14        | PASS   |

Physical & Safety

| Test                    | Method                 | Specification               | Result         | Status |
|-------------------------|------------------------|-----------------------------|----------------|--------|
| Appearance              | Visual inspection      | White lyophilized powder    | White powder   | PASS   |
| Solubility              | Visual · 1 mg/mL WFI   | Freely soluble in water/WFI | Clear solution | PASS   |
| Endotoxin (LAL)         | Endosafe PTS · 1:10    | < 1.0 EU/mg                 | < 0.05 EU/mL   | PASS   |
| Water Content — Form 1) | Karl Fischer titration | ≤ 5.0%                      | 2.8%           | INFO   |

PAS S

Biopelabs Laboratories · TrueMetricsLab · CoA #BPL872999 · Lot 38209872 · Form 4 — Control Test Table · Thymalin (ThyRmeusleina r/c ShT uFs) e 1o0n lmy.g N o· t 2fo9r/0h8u/m20a2n6orveterinary diagnostic use.

PASS

OVERALL RELEASE STATUS — ALL TESTS PASS — RELEASED

Thymalin 10mg · Lot 38209872 · CoA BPL872999 · QC #999 · 29/08/2026 · 19/19 tests passed

RELEASED

AUTHORIZATION

Reviewed & Released by

Jeffrey Collins

Operations Manager

Biopelabs Laboratories

Report Date / Reference

29/08/2026

Lot: 38209872

CoA: BPL872999

Solubility / Storage

Deionized Water or WFI

-20 °C · desiccated

Protected from light