FREEDOM DIAGNOSTICS

# Certificate of Analysis

FreedomDiagnosticsTesting.com

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| | |
|---|---|
| **Client:** | Essential Aminos |
| **Accession #:** | 2608050871 |
| **Search Code:** | Esse2608050871 |
| **Received:** | 8/5/2026 |
| **Reported:** | 8/9/2026 |
| **Lot:** | BX-P-Y9G0 |

## Sample Summary

| | | | |
|---|---|---|---|
| **Product:** | EA-2TZ 20mg | **Purity:** | Vial 1: 99.81%<br>Vial 2: 99.91% |
| **Identity:** | Confirmed | **Net Content:** | Vial 1: 24.32 mg<br>Vial 2: 23.55 mg |
| **Appearance:** | White Lyophilized Powder | | |
| **Endotoxin Threshold:** | Pass | | |
| **Microbial Analysis (PCR):** | Pass | | |
| **Elemental Impurities (ICP-MS): As \| Cd \| Pb \| Hg** | Pass | | |
| **Fentanyl** | No Fentanyl Detected | | |

## Analytical Results

| Test | Result |
|---|---|
| **Identity (LC-MS)** | GLP TZ |
| **Purity (HPLC-UV)** | 99.86% |
| **Elemental Impurities (ICP-MS):** | Pass — Arsenic, Cadmium, Lead, and Mercury below reporting/specification limits |
| **Net Content** | 23.94 mg |

Method: Endotoxin testing performed using Limulus Amebocyte Lysate assay in accordance with USP <85> under validated laboratory conditions.

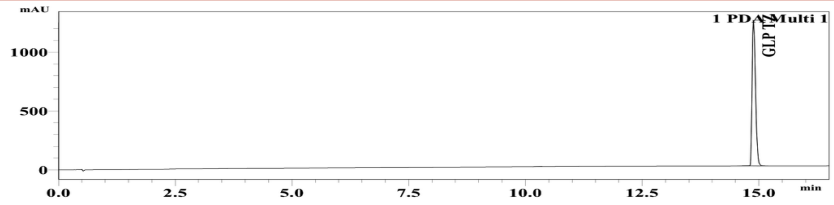
| | | |
|---|---|---|
| **Endotoxin Replicate 1:** | **Pass** | Assay Sensitivity: ≤0.05 EU/mL |
| **Endotoxin Replicate 2:** | **Pass** | Assay Sensitivity: ≤0.05 EU/mL |

Method: Microbial detection performed using validated polymerase chain reaction (PCR)-based assay targeting common microbial contaminants.

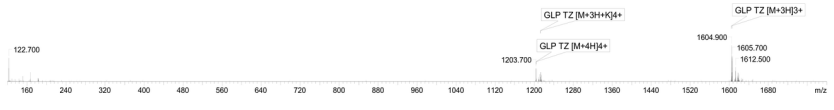
**Microbial Analysis (PCR)** No Detectable Microbial DNA

Method: HPLC with UV detection coupled with mass spectrometry (LC-MS).

**Chromatogram**




**Mass Confirmation**




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Principal Chemist

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The peptide purity analysis reported here was conducted using LCMS/MS under standard laboratory conditions. This analysis is intended for informational purposes only and is specific to the sample(s) provided. The peptides tested are intended for research use only and are not approved for human or veterinary use, diagnostic, therapeutic, or clinical applications. Results should be interpreted by qualified professionals within the scope of the intended research. The accuracy and reliability of the test may be influenced by sample integrity, handling, and other experimental variables.