FREEDOM DIAGNOSTICS

Certificate of Analysis

FreedomDiagnosticsTesting.com

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Client:	Peptira LLC
Accession #:	2607300777
Search Code:	Pept2607300777
Received:	7/30/2026
Reported:	8/4/2026
Lot:	TIRZ20-007

Sample Summary

Product:	TIRZ-2 20mg	**Purity:**	Vial 1: 99.89% Vial 2: 99.82% Vial 3: 99.95%
Identity:	Confirmed	**Net Content:**	Vial 1: 20.61 mg Vial 2: 20.34 mg Vial 3: 20.69 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)	99.89%
Elemental Impurities (ICP-MS):	Pass — Arsenic, Cadmium, Lead, and Mercury below reporting/specification limits
Net Content	20.55 mg

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

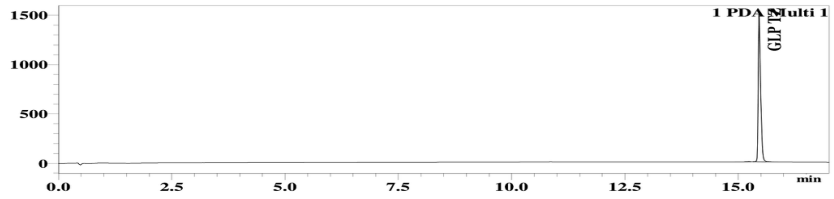
Endotoxin Replicate 1:	**Pass**	Assay Sensitivity: ≤0.05 EU/mL
Endotoxin Replicate 2:	**Pass**	Assay Sensitivity: ≤0.05 EU/mL

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

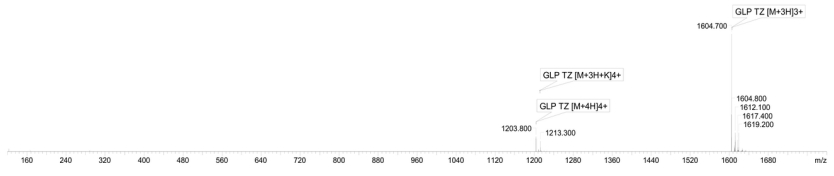
Microbial Analysis (PCR) No Detectable Microbial DNA

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.