Certificate of Analysis

ILS Laboratories
8222 Vickers St, Suite 106, San Diego, CA 92111
(619) 329-3999 | ils-lab.com

GLA-2 TRZ - 20

PASS

Tested for: Glacier Aminos
www.glacieraminos.shop

COA #:	**COA-2026-F73GSC**	Method:	**Full QC Panel**
Lot Number:	**TIR20GA-04**	Analysis Date:	**05/11/2026**
Accession #:	**ACC-2026-2154**	Appearance:	**Good**
Concentration:	**20**	Volume:	**3mL**
Sample Matrix:	**Lyophilized**	Received:	**05/07/2026**

Scan to verify authenticity at ils-lab.com

Identity	Purity
GLA-2 TRZ	**99.85%**

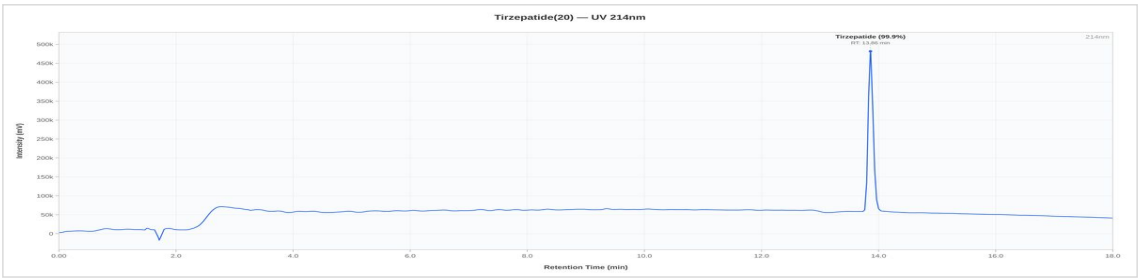


GLA-2 TRZ 20 - TIR20GA-04

Purity & Quant (HPLC)

Analyte	Specification	Result	Unit	Status
Purity (HPLC)	>= 95.0%	**99.85%**	%	PASS
Net Peptide Content	Report Only	**20.54**	mg	N/A
Identity (ID)	TIRZEPATIDE	**Confirmed**	-	PASS

HPLC Chromatogram



Representative chromatogram, Dedicated V0 (99.41% purity, closest to batch mean of 99.52%)

HPLC Conformity Testing Results (3 samples tested)

Sample	Purity	NPC	ID	Result
Dedicated V0	99.41%	20.62 mg	Confirmed	PASS
Conformity V1	99.31%	20.91 mg	Confirmed	PASS
Conformity V2	99.85%	20.54 mg	Confirmed	PASS
Mean	**99.52%**	**20.69 mg**	—	—
Std Dev	**0.2346%**	**0.1590 mg**	—	—

Dr. Greg Kalyuzhny
Lab Director
5/11/2026

COA #: **COA-2026-F73GSC**
Access Code: **_M2WSBTH**
Verify: portal.ils-lab.com/verify/MnsOUoSIiUMitsRG
Issued: 5/11/2026

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Lot Number:	**TIR20GA-04**	Analysis Date:	**05/11/2026**
Accession #:	**ACC-2026-2154**	Appearance:	**Good**
Concentration:	**20**	Volume:	**3mL**
Sample Matrix:	**Lyophilized**	Received:	**05/07/2026**

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Heavy Metals Analysis (ICP-MS)

Test	Specification	Result	Status
Arsenic (As)	NMT 1.5 ppm	*Not Detected*	**PASS**
Cadmium (Cd)	NMT 0.5 ppm	*Not Detected*	**PASS**
Chromium (Cr)	NMT 10 ppm	*Not Detected*	**PASS**
Mercury (Hg)	NMT 1.5 ppm	*Not Detected*	**PASS**
Lead (Pb)	NMT 1 ppm	*Not Detected*	**PASS**

Sterility Testing (PCR)

Test	Specification	Result	Unit	Status
Sterility (PCR)	No Growth	**No Growth**	-	**PASS**

Endotoxin Testing (USP <85>)

Test	Specification	Result	Unit	Status
Endotoxin (USP <85>)	< 0.25 EU/mL	**0.094 EU/mL**		**PASS**

Notes & Methodology

1. Date Tested: 05/11/2026. Methods: Purity & Quant (HPLC).
2. The sample was confirmed to be GLA-2 TRZ by HPLC. Identification by chromatographic retention time comparison with a reference standard.
3. Elemental impurities analyzed by ICP-MS per USP <233> methodology. Acceptance criteria are internal laboratory quality screening limits for research-use materials and do not represent evaluation against any specific pharmacopeial monograph or route-of-administration standard.
4. Chromatogram shown is representative: Dedicated V0 (99.41% purity, closest to batch mean of 99.52%).

Dr. Greg Kalyuzhny
Lab Director
5/11/2026

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