pH SOLUTIONS

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ISO/IEC 17025:2017 Accredited

CERTIFICATE OF ANALYSIS

PLB-COA-GLT20-20260702-01

Prepared for: Peptology Labs

Issued: Jul13,2026

PRODUCT

GLP-2 (T) 20mg

20 mg/vial · PLB-V-GLT-20

RELEASED

LOT NUMBER	MANUFACTURE DATE	EXPIRY DATE	VIALS IN LOT
PLB-GLT20-20260702-01	9-Jul-2026	9-Jul-2027	130

1 FILL WEIGHT

TARGET FILL WEIGHT (mg)

20.00

FILL WEIGHT CONFORMANCE (vials passed/total vials in lot)

130/130

2 ANALYTICAL TEST RESULTS

PARAMETER	METHOD	SPECIFICATION	RESULT	WHY IT MATTERS
Appearance *Visual Inspection*	Visual	White to off-white lyophilized powder cake; free of visible particulates	**Pass**	Visual anomalies such as discoloration, clumping or particulates can indicate degradation, contamination, or moisture ingress, any of which compromise product integrity before analytical testing is even performed.
Purity *Area %*	HPLC @ 274nm	≥99%	**Pass**	Measures what fraction of the material is the complete target peptide vs. synthesis byproducts, truncated sequences, or degradation products. High purity ensures the results reflect the intended compound and ensures identity by confirming retention time during this test aligns with a certified reference standard.
Microbials *Total Aerobic Count · Enterobacteriaceae · Total Yeast & Mold*	qPCR	Total Aerobic Count: ND in 1g; Enterobacteriaceae: ND in 1g; Total Yeast & Mold: ND in 1g	**Not Detected — Pass (all 3 analytes)**	Confirms the finished vial is free of viable bacteria, Enterobacteriaceae, yeast, and mold. Microbial contamination in reconstituted peptide solutions can invalidate cell-based and in vivo research results.
Mycotoxins *Aflatoxins B1/B2/G1/G2 · Ochratoxin A · Total Aflatoxins*	LCMS	Aflatoxins B1, B2, G1, G2 <4 µg/kg each; Total Aflatoxins <20 µg/kg; Ochratoxin A <20 µg/kg	**Not Detected — Pass (all 6 analytes)**	Mycotoxins are toxic fungal metabolites that can contaminate peptide raw materials during synthesis or storage. Even trace levels of aflatoxins and ochratoxin A are potent carcinogens and nephrotoxins that confound research outcomes and pose handling risks.
Water Activity *Moisture determination*	Water Activity Meter	<0.65 aw (threshold for microbial growth)	**0.49 aw — Pass**	Lyophilized peptides absorb atmospheric moisture, which dilutes the active content per mg and accelerates degradation. Knowing water content allows researchers to calculate the true peptide mass when preparing solutions for experiments.

PARAMETER	METHOD	SPECIFICATION	RESULT	WHY IT MATTERS
Residual solvents *Headspace analysis, tested at raw material inspection*	GC headspace	ICH Q3C Class 2/3 limits	**Below ICH limits — Pass**	Organic solvents such as DMF, DCM, and acetonitrile are used during synthesis and purification. Residual traces can interfere with biological assays, affect cell viability, and indicate incomplete purification of the final product. This test was performed on the bulk API lot during incoming raw material inspection prior to manufacturing.
Elemental Impurities (Heavy Metals) *Arsenic · Cadmium · Lead · Mercury, tested at raw material inspection*	ICPMS	USP <232>	**Below USP limits — Pass**	Heavy metals accumulate in biological systems and can interfere with enzyme activity, receptor binding, and cell viability. Even trace levels of arsenic, cadmium, lead, and mercury can confound in vitro and in vivo research outcomes.

TESTED BY

pH Solutions

GMP Third party testing laboratory

PREPARED FOR

Peptology Labs

Peptology Labs maintains ultimate authority for final product release and assumes all responsibility for the marketing, distribution, and fitness of the product for its intended research use.

AUTHORIZED RELEASE

This lot has been independently reviewed and released by Peptology Labs based on conformant data provided by third-party contractors.

All tested parameters conform to the specifications defined in this certificate.

For Research Use Only. Not for use in diagnostic procedures. Not for human or veterinary use. This product has not been evaluated by the FDA for safety or efficacy. Peptology Labs makes no representations regarding the safety, efficacy, or fitness of this product for any purpose other than laboratory research

This Certificate of Analysis (COA) is issued by Peptology Labs. While the data herein is derived from analytical testing by pH Solutions, Peptology Labs assumes all responsibility for the final quality review, release, and marketing of this lot. The manufacturer and testing laboratory act as independent contractors; they make no warranties to the end-user and shall be held harmless from any claims arising from the distribution or use of this product.

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