Peptide Test Canada
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Canada's Most Trusted Independent Peptide Testing Lab

# Certificate of Analysis

Lab ID: **TIR-019**

**REPORTED** August 14, 2026

**CLIENT**

**VERIFY** peptidetestcanada.ca/verify
**EMAIL** info@peptidetestcanada.ca
**ORDER #** PTC-747650

SCAN TO VERIFY
PTC-8SR9MHK3

**END CUSTOMER**

**NAME** Vanguard Compound Research
**EMAIL** Info@VanguardResearch.ca
**PHONE** —
**ADDRESS** —

## § 01 Sample Information

FOR RESEARCH PURPOSES ONLY

| | | | |
|---|---|---|---|
| Sample ID: | **TIR-019** | Received: | **08/10/2026** |
| Compound: | **Tirzepatide** | Analyzed: | **08/14/2026** |
| Report No.: | **COA-2026-SC-01237** | CAS: | **2023788-19-2** |
| Lot Number: | **TR202605B** | Formula: | **$C_{225}H_{348}N_{48}O_{68}$** |
| Total Mass: | **61.4 mg** | Mol Weight: | **4814.6 g/mol** |
| Appearance: | **Lyophilized powder** | | |

SAMPLE PHOTOGRAPH




## § 02 Analytical Results

*Qualitative and Quantitative chemical analysis by Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)*

| | SPECIFICATION | RESULT | STATUS |
|---|---|---|---|
| **Compound Test:** | Tirzepatide | **Tirzepatide** | |
| **Net Peptide Content:** | 20.00 mg | **19.30 mg** | |
| **Peptide Label Accuracy:** | ≥ 90 % | **96.5 %** | **PASS** |
| **Chromatographic Purity:** | ≥ 98 % | **99.2 %** | |

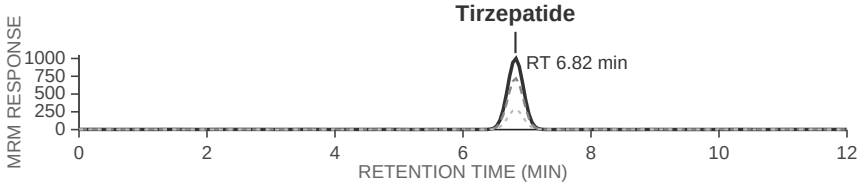
**Chromatographic purity** is the target peptide's HPLC-MS/MS principal component analysis, expressed as a percentage of total integrated peak area (Ph. Eur. 2.2.46) — it bounds peptide-related impurities only, not excipients, counter-ions, or residual water, and is separate from net peptide content. **—** indicates not determined.

## § 03 LC-MS/MS Detail

METHOD B · AGILENT 1290 INFINITY II + 6495 QQQ · ESI+

**PRECURSOR [M+5H]5+**
**963.90 Da**

**Quantifier transition ● MRM**
**963.90 › 136.10 CE 28 V**




| ROLE | TRANSITION | CE |
|---|---|---|
| ● Quantifier | 963.9 › 136.1 | 28 V |
| ■ Qualifier | 963.9 › 110.1 | 33 V |

Agilent Poroshell 120 EC-C18 · 2.1×100 mm · 2.7 µm · Solvent A: 0.1 % formic acid in $H_2O$ · Solvent B: 0.1 % formic acid in Acetonitrile

**Issued August 14, 2026**

**DISCLAIMER · RESEARCH USE ONLY**

Results relate **only to the sample as received** and the tests performed — not to any other unit, lot, or batch. **For research use only**: not a certificate of quality, safety, efficacy, or regulatory compliance, and not for human or veterinary administration, clinical or diagnostic use, or label claims. SideChain Analytics does not manufacture, source, or sell the material and makes **no warranty, express or implied**; its liability shall not exceed the testing fee. This report may not be reproduced except in full.

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