

## Certificate of Analysis

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**Product Name:** GLP-1 (9-36) amide

**Catalog No.:** 3266

**Batch No.:** 11

CAS Number: 161748-29-4

### 1. PHYSICAL AND CHEMICAL PROPERTIES

|                                 |   |
|---------------------------------|---|
| <b>Batch Molecular Formula:</b> | C <sub>140</sub> H <sub>214</sub> N <sub>36</sub> O <sub>43</sub>   |
| <b>Batch Molecular Weight:</b>  | 3089.44   |
| <b>Physical Appearance:</b>     | White lyophilised solid   |
| <b>Net Peptide Content:</b>     | 80%   |
| <b>Counter Ion:</b>             | TFA   |
| <b>Solubility:</b>              | Soluble to 2 mg/ml in 0.025% acetic acid  |
| <b>Storage:</b>                 | Desiccate at -20°C  |
| <b>Peptide Sequence:</b>        | Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-NH <sub>2</sub> |

### 2. ANALYTICAL DATA

|                       |                           |
|-----------------------|---------------------------|
| <b>HPLC:</b>          | Shows 97% purity          |
| <b>Mass Spectrum:</b> | Consistent with structure |

### 3. AMINO ACID ANALYSIS DATA

| Amino Acid Theoretical Actual |      |      | Amino Acid Theoretical Actual |      |          |
|-------------------------------|------|------|-------------------------------|------|----------|
| Ala                           | 3.00 | 2.87 | Lys                           | 2.00 | 1.98     |
| Arg                           | 1.00 | 1.02 | Met                           |      |          |
| Asx                           | 1.00 | 0.99 | Phe                           | 2.00 | 1.99     |
| Cys                           |      |      | Pro                           |      |          |
| Glx                           | 4.00 | 3.97 | Ser                           | 3.00 | 2.99     |
| Gly                           | 3.00 | 3.04 | Thr                           | 2.00 | 1.86     |
| His                           |      |      | Trp                           | 1.00 | Detected |
| Ile                           | 1.00 | 1.00 | Tyr                           | 1.00 | 1.07     |
| Leu                           | 2.00 | 2.02 | Val                           | 2.00 | 1.99     |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 161748-29-4

**Description:**

N-terminal truncated metabolite of glucagon-like peptide GLP-1-(7-36) (Cat. No. 2082) formed by dipeptidyl peptidase-IV cleavage. Acts as an antagonist at the human GLP-1 receptor. Inhibits hepatic glucose production *in vivo* and is a weak insulinotropic agent.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>140</sub>H<sub>214</sub>N<sub>36</sub>O<sub>43</sub>

Batch Molecular Weight: 3089.44

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-NH<sub>2</sub>

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in 0.025% acetic acid

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Net Peptide Content:** 80% (Remaining weight made up of counterions and residual water).

**Counter Ion:** TFA

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Elahi *et al*** (2008) GLP-1 (9-36) amide, cleavage product of GLP-1 (7-36) amide is a glucoregulatory peptide. *Obesity* **16** 1501. PMID: 18421270.

**Knudsen and Pridal** (1996) Glucagon-like peptide-1-(9-36) amide is a major metabolite of glucagon-like peptide-1-(7-36) amide after *in vivo* administration to dogs, and it acts as an antagonist on the pancreatic receptor. *Eur.J.Pharmacol.* **318** 429. PMID: 9016935.

**Deacon *et al*** (1995) Degradation of glucagon-like peptide-1 by human plasma *in vitro* yields an N-terminally truncated peptide that is a major endogenous metabolite *in vivo*. *J.Clin.Endocrinol.Met.* **80** 952.

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