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TOCRIS

Print Date: Sep 3rd 2024

Certificate of Analysis

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Product Name: **Glucagon-like peptide 1 (1-37) (human, rat)** **Catalog No.: 1851** **Batch No.: 9**

CAS Number: 87805-34-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{186}H_{275}N_{51}O_{59}$
Batch Molecular Weight:	4169.52
Physical Appearance:	White lyophilised solid
Counter Ion:	TFA
Solubility:	Soluble to 5 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	His-Asp-Glu-Phe-Glu-Arg-His-Ala-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-Gly

2. ANALYTICAL DATA

HPLC:	Shows 98.8% purity
Mass Spectrum:	Consistent with structure

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Product Name: **Glucagon-like peptide 1 (1-37) (human, rat)** **Catalog No.: 1851** **9**

CAS Number: 87805-34-3

Description:

Glucagon-like peptide 1 (1-37) (human, rat) is a pancreatic hormone synthesized by post-translational processing of proglucagon. Unlike truncated forms of GLP-1, it has no effect on food intake in rats and does not enhance pancreatic insulin secretion. However it induces insulin expression in intestinal epithelial cells, which can restore glucose homeostasis when implanted into diabetic mice.

Physical and Chemical Properties:

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Physical Appearance: White lyophilised solid

Peptide Sequence:

His-Asp-Glu-Phe-Glu-Arg-His-Ala-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-Gly

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 5 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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.

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 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:

Suzuki *et al* (2003) Glucagon-like peptide 1 (1-37) converts intestinal epithelial cells into Ins-producing cells. Proc.Natl.Acad.Sci.USA ***100*** 5034.

Navarro *et al* (1996) Colocalization of glucagon-like peptide-1 (GLP-1) receptors, glucose transporter GLUT-2, and glucokinase mRNAs in rat hypothalamic cells: evidence for a role of GLP-1 receptor agonists as an inhibitory signal for food and water intake. J.Neurochem. ***67*** 1982. PMID: 8863504.

Bell *et al* (1983) Exon duplication and divergence in the human preproglucagon gene. Nature ***304*** 368. PMID: 6877358.