

Certificate of Analysis

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Product Name: [Des-octanoyl]-Ghrelin (rat)

Catalog No.: 2951

Batch No.: 4

CAS Number: 307950-60-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₃₉ H ₂₃₁ N ₄₅ O ₄₁
Batch Molecular Weight:	3188.63
Physical Appearance:	White lyophilised solid
Net Peptide Content:	73%
Counter Ion:	TFA salt
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Gly-Ser-Ser-Phe-Leu-Ser-Pro-Glu-His-Gln- Lys-Ala-Gln-Gln-Arg-Lys-Glu-Ser-Lys-Lys- Pro-Pro-Ala-Lys-Leu-Gln-Pro-Arg

2. ANALYTICAL DATA

HPLC:	Shows 99% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	2.02	Lys	5.00	5.31
Arg	2.00	2.15	Met		
Asx			Phe	1.00	1.07
Cys			Pro	4.00	3.92
Glx	6.00	5.83	Ser	4.00	3.64
Gly	1.00	1.02	Thr		
His	1.00	1.00	Trp		
Ile			Tyr		
Leu	2.00	2.02	Val		

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

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Catalog No.: 2951

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CAS Number: 307950-60-3

Description:

[Des-octanoyl]-Ghrelin (rat) is a non-acylated, major circulating isoform of ghrelin that does not bind to the ghrelin receptor (GHS-R1a), nor induce growth hormone release.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃₉H₂₃₁N₄₅O₄₁

Batch Molecular Weight: 3188.63

Physical Appearance: White lyophilised solid

Peptide Sequence:

Gly-Ser-Ser-Phe-Leu-Ser-Pro-Glu-His-Gln-
Lys-Ala-Gln-Gln-Arg-Lys-Glu-Ser-Lys-Lys-
Pro-Pro-Ala-Lys-Leu-Gln-Pro-Arg

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

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: 73% (Remaining weight made up of counterions and residual water).

Counter Ion: TFA salt

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:

Cassoni et al (2004) Expression of ghrelin and biological activity of specific receptors for ghrelin and des-acyl ghrelin in human prostate neoplasms and related cell lines. *Eur.J.Endocrinol.* **150** 173. PMID: 14763915.

Thompson et al (2004) Ghrelin and des-octanoyl ghrelin promote adipogenesis directly *in vivo* by a mechanism independent of the type 1a GH secretagogue receptor *Endocrinology* **145** 234. PMID: 14551228.

Bedendi et al (2003) Cardiac effects of ghrelin and its endogenous derivatives des-octanoyl ghrelin and des-Gln¹⁴-ghrelin. *Eur.J.Pharmacol.* **476** 87. PMID: 12969753.

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