

## Certificate of Analysis

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

**Catalog No.:** 2951

**Batch No.:** 7

CAS Number: 307950-60-3

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>139</sub> H <sub>231</sub> N <sub>45</sub> O <sub>41</sub>
<b>Batch Molecular Weight:</b>	3188.63
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	71%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 1 mg/ml in water
<b>Storage:</b>	Store at -20°C
<b>Peptide Sequence:</b>	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

<b>HPLC:</b>	Shows 99% purity
<b>Mass Spectrum:</b>	Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala	2.00	1.92	Lys	5.00	5.04		
Arg	2.00	1.96	Met				
Asx			Phe	1.00	1.02		
Cys			Pro	4.00	3.99		
Glx	6.00	6.15	Ser	4.00	3.92		
Gly	1.00	0.99	Thr				
His	1.00	0.99	Trp				
Ile			Tyr				
Leu	2.00	1.96	Val				

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

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

**Catalog No.:** 2951

**7**

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: C<sub>139</sub>H<sub>231</sub>N<sub>45</sub>O<sub>41</sub>

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:** 71% (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:**

**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-Gln<sup>14</sup>-ghrelin. *Eur.J.Pharmacol.* **476** 87. PMID: 12969753.

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