

## Certificate of Analysis

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**Product Name:** Oxyntomodulin (porcine, bovine)

**Catalog No.:** 2094

**Batch No.:** 5

CAS Number: 62340-29-8

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>192</sub> H <sub>295</sub> N <sub>59</sub> O <sub>60</sub> S
<b>Batch Molecular Weight:</b>	4421.86
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	81%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 1 mg/ml in water
<b>Storage:</b>	Desiccate at -20°C
<b>Peptide Sequence:</b>	His-Ser-Gln-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Lys-Tyr-Leu-Asp-Ser-Arg-Arg-Ala-Gln-Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr-Lys-Arg-Asn-Lys-Asn-Asn-Ile-Ala

### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 95.6% purity
<b>Mass Spectrum:</b>	Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala	2.00	1.90	Lys	3.00	2.99		
Arg	3.00	2.99	Met	1.00	0.99		
Asx	7.00	7.04	Phe	2.00	1.97		
Cys			Pro				
Glx	3.00	2.93	Ser	4.00	3.14		
Gly	1.00	1.01	Thr	3.00	2.68		
His	1.00	1.00	Trp	1.00	0.37		
Ile	1.00	0.98	Tyr	2.00	1.97		
Leu	2.00	2.09	Val	1.00	1.05		

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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel:+1 612 379 2956

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CAS Number: 62340-29-8

**Description:**

GLP-1 receptor agonist. Endogenous preproglucagon-derived neuropeptide that modulates feeding and metabolism. Also secreted by intestinal L-cells. Increases cAMP production and inhibits gastric acid secretion in rat stomach. Also weak glucagon receptor agonist.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>192</sub>H<sub>295</sub>N<sub>59</sub>O<sub>60</sub>S

Batch Molecular Weight: 4421.86

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

His-Ser-Gln-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-  
Ser-Lys-Tyr-Leu-Asp-Ser-Arg-Arg-Ala-Gln-  
Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr-Lys-  
Arg-Asn-Lys-Asn-Asn-Ile-Ala

**Storage:** Desiccate 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:** 81% (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:**

**Vrang and Larsen et al** (2010) Preproglucagon derived peptides GLP-1, GLP-2 and oxyntomodulin in the CNS: role of peripherally secreted and centrally produced peptides. *Prog.Neurobiol.* **92** 442. PMID: 20638440.

**Stumpel et al** (1997) A new role for enteric glucagon-37: acute stimulation of glucose absorption in rat small intestine. *FEBS Lett.* **410** 515. PMID: 9237694.

**Jarrousse et al** (1985) Oxyntomodulin (glucagon-37) and its C-terminal octapeptide inhibit gastric acid secretion. *FEBS Lett.* **188** 81. PMID: 4018272.

**Bataille et al** (1981) Bioactive enteroglucagon (oxyntomodulin): present knowledge on its chemical structure and its biological activities. *Peptides* **2** 41. PMID: 6283496.

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