

## Certificate of Analysis

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**Product Name:** AC 187  
**CAS Number:** 151804-77-2

**Catalog No.:** 3419      **Batch No.:** 7

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{127}H_{205}N_{37}O_{40}$   
**Batch Molecular Weight:** 2890.25  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 100%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Ac-Val-Leu-Gly-Lys-Leu-Ser-Gln-Glu-Leu-His-Lys-Leu-Gln-Thr-Tyr-Pro-Arg-Thr-Asn-Thr-Gly-Ser-Asn-Thr-Tyr-NH<sub>2</sub>

### 2. ANALYTICAL DATA

**HPLC:** Shows 98.4% purity  
**Mass Spectrum:** Consistent with structure

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**Description:**

Orally active, potent amylin receptor antagonist (IC<sub>50</sub> = 0.48 nM) that displays 38-fold and 400-fold selectivity over calcitonin and CGRP receptors respectively. Blocks amyloid β-induced neurotoxicity by attenuating the activation of initiator and effector caspases in vitro. Increases glucagon secretion, accelerates gastric emptying, alters plasma glucose levels and increases food intake in vivo.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>127</sub>H<sub>205</sub>N<sub>37</sub>O<sub>40</sub>  
Batch Molecular Weight: 2890.25  
Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Ac-Val-Leu-Gly-Lys-Leu-Ser-Gln-Glu-Leu-  
His-Lys-Leu-Gln-Thr-Tyr-Pro-Arg-Thr-Asn-  
Thr-Gly-Ser-Asn-Thr-Tyr-NH<sub>2</sub>

**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:** 100% (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:**

**Gedulin *et al*** (2006) Role of endogenous amylin in glucagon secretion and gastric emptying in rats demonstrated with the selective antagonist, AC187. *Regul. Pept.* **137** 121. PMID: 16914214.

**Jhamandas and MacTavish** (2004) Antagonist of the amylin receptor blocks β-amyloid toxicity in rat cholinergic basal forebrain neurons. *J. Neurosci.* **24** 5579. PMID: 15201330.

**Reidelberger *et al*** (2004) Amylin receptor blockade stimulates food intake in rats. *Am. J. Physiol. Inter. Comp. Physiol.* **287** R568.

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