

Certificate of Analysis

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

Catalog No.: 3419 **Batch No.:** 8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂₇H₂₀₅N₃₇O₄₀
Batch Molecular Weight: 2890.25
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store 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-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.4% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	2.00	2.06	
Arg	1.00	1.02	Met				
Asx	2.00	1.98	Phe				
Cys			Pro	1.00	1.03		
Glx	3.00	3.04	Ser	2.00	2.11		
Gly	2.00	2.07	Thr	4.00	4.04		
His	1.00	0.89	Trp				
Ile			Tyr	2.00	1.95		
Leu	4.00	3.78	Val	1.00	0.96		

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

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Product Name: AC 187

Catalog No.: 3419

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CAS Number: 151804-77-2

Description:

AC 187 is an orally active, potent amylin receptor antagonist ($IC_{50} = 0.48$ 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: $C_{127}H_{205}N_{37}O_{40}$

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-NH₂

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.

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 μ m 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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