

Product Name: Pramlintide

Catalog No.: 5031

Batch No.: 5

CAS Number: 151126-32-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇₁H₂₆₇N₅₁O₅₃S₂
Batch Molecular Weight: 3949.42
Physical Appearance: White lyophilised solid
Net Peptide Content: 84%
Counter Ion: Acetate Salt
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence:

Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Asn-Phe-Leu-Val-His-Ser-Ser-Asn-Asn-Phe-Gly-Pro-Ile-Leu-Pro-Pro-Thr-Asn-Val-Gly-Ser-Asn-Thr-Tyr-NH₂

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	3.00	2.84	Lys	1.00	0.97
Arg	1.00	1.07	Met		
Asx	6.00	6.06	Phe	2.00	2.02
Cys	2.00	Detected	Pro	3.00	3.01
Glx	1.00	1.04	Ser	3.00	3.04
Gly	2.00	1.98	Thr	5.00	5.00
His	1.00	0.74	Trp		
Ile	1.00	0.94	Tyr	1.00	1.00
Leu	3.00	3.04	Val		

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

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Description:

Pramlintide is a synthetic version of amylin (Cat. No. 3418). Exhibits high affinity for amylin, CGRP and calcitonin receptors (K_i values are 0.023, 3.8 and 5.1 nM respectively). Reduces postprandial hyperglycemia; also inhibits gastric emptying.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{171}H_{267}N_{51}O_{53}S_2$

Batch Molecular Weight: 3949.42

Physical Appearance: White lyophilised solid

Peptide Sequence:

Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Asn-Phe-Leu-Val-His-Ser-Ser-Asn-Asn-Phe-Gly-Pro-Ile-Leu-Pro-Pro-Thr-Asn-Val-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.

Net Peptide Content: 84% (Remaining weight made up of counterions and residual water).

Counter Ion: Acetate 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:

Hoogwerf et al (2008) Pramlintide, the synthetic analogue of amylin: physiology, pathophysiology, and effects on glycemic control, body weight, and selected biomarkers of vascular risk. *Vasc. Health Risk Manag.* **4** 355. PMID: 18561511.

Young et al (1996) Preclinical pharmacology of pramli. in the rat: comparisons with human and rat amylin. *Drug Dev. Res.* **37** 231.

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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

Tel: +1 612 379 2956