

Certificate of Analysis

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Product Name: PAMP-20 (human)

Catalog No.: 6552

Batch No.: 1

CAS Number: 150238-87-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁₂H₁₇₈N₃₆O₂₇
Batch Molecular Weight: 2460.87
Physical Appearance: White lyophilised solid
Net Peptide Content: 72%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ala-Arg-Leu-Asp-Val-Ala-Ser-Glu-Phe-Arg-Lys-Lys-Trp-Asn-Lys-Trp-Ala-Leu-Ser-Arg-NH₂

2. ANALYTICAL DATA

HPLC: Shows 95.4% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	3.00	2.85	Lys	3.00	3.02
Arg	3.00	2.96	Met		
Asx	2.00	2.08	Phe	1.00	0.99
Cys			Pro		
Glx	1.00	1.01	Ser	2.00	1.40
Gly			Thr		
His			Trp		
Ile			Tyr		
Leu	2.00	1.99	Val	1.00	1.09

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

Tel: +1 612 379 2956

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CAS Number: 150238-87-2

Description:

Endogenous peptide agonist of Mas related GPR X2 (MRGPRX2, EC₅₀ = 251 nM). Also a noncompetitive nicotinic cholinergic antagonist. Inhibits nicotine-stimulated catecholamine secretion from PC12 cells in vitro, and from sympathetic nerve endings and adrenal chromaffin cells in vivo. Corresponds to amino acids 1 - 20 of proadrenomedullin. Antihypertensive.

Physical and Chemical Properties:Batch Molecular Formula: C₁₁₂H₁₇₈N₃₆O₂₇

Batch Molecular Weight: 2460.87

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Arg-Leu-Asp-Val-Ala-Ser-Glu-Phe-Arg-
Lys-Lys-Trp-Asn-Lys-Trp-Ala-Leu-Ser-Arg-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: 72% (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:

Kamohara et al (2005) Identification of MrgX2 as a human G-protein-coupled receptor for proadrenomedullin N-terminal peptides. *Biochem.Biophys.Res.Commun*, **330** 1146. PMID: 15823563.

Mahata et al (1998) Proadrenomedullin N-terminal 20 peptide: minimal active region to regulate nicotinic receptors. *Hypertension* **32** 907. PMID: 9822452.

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