

Product Name: A 71915
CAS Number: 132956-87-7

Catalog No.: 6715 **Batch No.:** 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆₉H₁₁₆N₂₆O₁₅S₂
Batch Molecular Weight: 1613.95
Physical Appearance: White lyophilised solid
Net Peptide Content: 74%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Arg-Cys-Cha-Gly-Gly-Arg-Ile-Asp-Arg-Ile-
└───┬───┘
D-Tic-Arg-Cys-NH₂

2. ANALYTICAL DATA

HPLC: Shows 96% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual	
Ala			Lys	
Arg	4.00	4.08	Met	
Asx	1.00	1.01	Phe	
Cys	2.00	Detected	Pro	
Glx			Ser	
Gly	2.00	2.02	Thr	
His			Trp	
Ile	2.00	1.97	Tyr	
Leu			Val	

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

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Description:

Highly potent and competitive natriuretic peptide receptor A (NPRA) antagonist ($pK_i = 9.18$). Reduces brain natriuretic peptide (BNP, Cat. No. 3522)-induced scratching in mice.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{69}H_{116}N_{26}O_{15}S_2$

Batch Molecular Weight: 1613.95

Physical Appearance: White lyophilised solid

Peptide Sequence:

Arg-Cys-Cha-Gly-Gly-Arg-Ile-Asp-Arg-Ile-

└───┬───┘
D-Tic-Arg-Cys-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: 74% (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:

Kiguchi *et al* (2016) Spinal functions of B-type natriuretic peptide, gastrin-releasing peptide, and their cognate receptors for regulating itch in mice. *J.Pharmacol.Exp.Ther.* **356** 596. PMID: 26669425.

Moro *et al* (2004) Functional and pharmacological characterization of the natriuretic peptide-dependent lipolytic pathway in human fat cells. *J.Pharmacol.Exp.Ther.* **308** 984. PMID: 14634036.

Delporte *et al* (1992) Discovery of a potent atrial natriuretic peptide antagonist for ANPA receptors in the human neuroblastoma NB-OK-1 cell line. *Eur.J.Pharmacol.* **224** 183. PMID: 1334838.

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