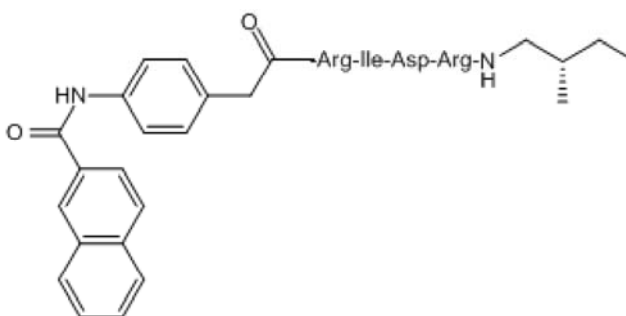


Product Name: AP 811
CAS Number: 124833-45-0

Catalog No.: 5498 **Batch No.:** 6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₆H₆₆N₁₂O₈
Batch Molecular Weight: 915.1
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 97.5 % purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys			
Arg	2.00		2.05	Met			
Asx	1.00		1.00	Phe			
Cys				Pro			
Glx				Ser			
Gly				Thr			
His				Trp			
Ile	1.00		0.95	Tyr			
Leu				Val			

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

Product Name: AP 811

Catalog No.: 5498

6

CAS Number: 124833-45-0

Description:

AP 811 is a high affinity, selective ANP clearance receptor (NPR3) antagonist ($K_i = 0.45$ nM). Exhibits >20,000-fold selectivity for NPR3 over NPR1. Inhibits ANP-stimulated Na⁺/K⁺ pump activity in rabbit ventricular cardiomyocytes in vitro. Also blocks proliferation of rodent neonatal cardiomyocytes seen at low ANP concentrations in vitro.

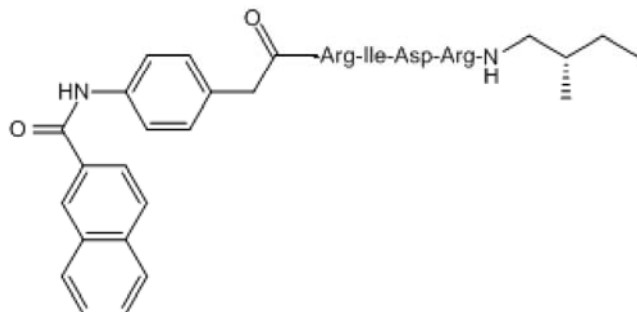
Physical and Chemical Properties:

Batch Molecular Formula: C₄₆H₆₆N₁₂O₈

Batch Molecular Weight: 915.1

Physical Appearance: White lyophilised solid

Peptide Sequence:



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 µm filter to remove potential bacterial contamination whenever possible.

References:

Becker et al (2014) Differential activation of natriuretic peptide receptors modulates cardiomyocyte proliferation during development. *Development* **141** 335. PMID: 24353062.

William et al (2008) Natriuretic peptides stimulate the cardiac sodium pump via NPR-C-coupled NOS activation. *Am.J.Physiol.Cell Physiol.* **294** C1067. PMID: 18272821.

Veale et al (2000) The discovery of non-basic atrial natriuretic peptide clearance receptor antagonists. Part 1. *Bioorg.Med.Chem.Lett.* **10** 1949. PMID: 10987424.

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