

Certificate of Analysis

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Product Name: Novokinin

Catalog No.: 3615

Batch No.: 2

CAS Number: 358738-77-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₉H₆₁N₁₁O₇
Batch Molecular Weight: 795.98
Physical Appearance: White lyophilised solid
Net Peptide Content: 64%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Desiccate at -20°C
Peptide Sequence: Arg-Pro-Leu-Lys-Pro-Trp

2. ANALYTICAL DATA

HPLC: Shows 99.1% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala			Lys	1.00	1.00
Arg	1.00	0.99	Met		
Asx			Phe		
Cys			Pro	2.00	2.00
Glx			Ser		
Gly			Thr		
His			Trp		
Ile			Tyr		
Leu	1.00	1.00	Val		

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

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Description:

Angiotensin AT₂ receptor agonist (K_i = 7.35 μM) that displays 93-fold selectivity over AT₁. Exhibits vasorelaxing and hypotensive activity via activation of the IP (prostacyclin) receptor, and suppresses food intake via activation of PGE₂-EP₄. Orally active.

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Batch Molecular Weight: 795.98

Physical Appearance: White lyophilised solid

Peptide Sequence:

Arg-Pro-Leu-Lys-Pro-Trp

Storage: Desiccate 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: 64% (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:

Ohinata *et al* (2009) Orally administered novokinin, an angiotensin AT₂ receptor agonist, suppresses food intake via prostaglandin E₂-dependent mechanism in mice. *Peptides* **30** 1105. PMID: 19463743.

Yamada *et al* (2008) A potent hypotensive peptide, novokinin, induces relaxation by AT₂- and IP-receptor-dependent mechanism in the mesenteric artery from SHRs. *Biosci. Biotechnol. Biochem.* **72** 257. PMID: 18175894.

Yamada *et al* (2008) Hypotensive activity of novokinin, a potent analogue of ovokinin(2-7), is mediated by angiotensin AT₂ receptor and prostaglandin IP receptor. *Peptides* **29** 412. PMID: 18207609.

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