

Certificate of Analysis

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Product Name: [Orn⁸]-Urotensin II

Catalog No.: 1619

Batch No.: 1

CAS Number: 479065-85-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆₃H₈₅N₁₃O₁₈S₂
Batch Molecular Weight: 1374.54
Physical Appearance: White lyophilised solid
Net Peptide Content: 84%
Storage: Desiccate at -20°C
Peptide Sequence: Glu-Thr-Pro-Asp-Cys-Phe-Trp-Orn-Tyr-Cys-Val

2. ANALYTICAL DATA

HPLC: Shows >95% purity

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual	Amino Acid Theoretical		Actual
Ala			Lys		
Arg			Met		
Asx	1.00	1.00	Phe	1.00	0.98
Cys	2.00		Pro	1.00	0.97
Glx	1.00	0.97	Ser		
Gly			Thr	1.00	1.01
His			Trp	1.00	
Ile			Tyr	1.00	1.07
Leu			Val	1.00	1.01

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

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CAS Number: 479065-85-5

Description:

Partial agonist peptide for the urotensin-II (UT) receptor. Acts as a full agonist at recombinant rat and human UT receptors (pEC₅₀ ~ 8) but behaves as a competitive antagonist (pA₂ = 6.56) in rat aorta.

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Physical Appearance: White lyophilised solid

Peptide Sequence:

Glu-Thr-Pro-Asp-Cys-Phe-Trp-Orn-Tyr-Cys-Val

Storage: Desiccate at -20°C**Solubility & Usage Info:**

Most peptides are soluble in distilled water. If the peptide does not completely dissolve addition of 0.1M acetic acid (those containing Arg, Lys, His) or 0.1M ammonia (those containing Asp, Glu) may help. Occasionally 10% DMSO or DMF may be required for extremely insoluble peptides. In addition to these measures sonification may also be helpful.

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).

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:

Camarda et al (2002) A new ligand for the urotensin II receptor. *Br.J.Pharmacol.* **137** 311. PMID: 12237249.

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