

Certificate of Analysis

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Product Name: (d(CH₂)₅¹,Tyr(Me)²,Arg⁸)-Vasopressin

Catalog No.: 3377

Batch No.: 7

CAS Number: 73168-24-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₅₂ H ₇₄ N ₁₄ O ₁₂ S ₂
Batch Molecular Weight:	1151.38
Physical Appearance:	White lyophilised solid
Net Peptide Content:	86%
Counter Ion:	TFA
Solubility:	Soluble to 2 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Pmp-Tyr(Me)-Phe-Gln-Asn- Cys-Pro-Arg-Gly-NH ₂ (Cyclic)

2. ANALYTICAL DATA

HPLC:	Shows 99% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala			Lys		
Arg	1.00	1.01	Met		
Asx	1.00	0.99	Phe	1.00	1.02
Cys	1.00	Detected	Pro	1.00	0.99
Glx	1.00	0.98	Ser		
Gly	1.00	1.01	Thr		
His			Trp		
Ile			Tyr		
Leu			Val	1.00	0.78

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

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Catalog No.: 3377

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CAS Number: 73168-24-8

EC Number:

Description:

Selective vasopressin V_{1A} receptor antagonist. Inhibits vasopressin and oxytocin-induced increases in intracellular calcium concentrations in vitro (IC₅₀ values are 5 and 30 nM respectively). Exhibits potent and prolonged antivasopressor activity and induces anxiolytic-like effects in the dorsal, but not ventral, hippocampus in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₅₂H₇₄N₁₄O₁₂S₂

Batch Molecular Weight: 1151.38

Physical Appearance: White lyophilised solid

Peptide Sequence:

Pmp-Tyr(Me)-Phe-Gln-Asn-

Cys-Pro-Arg-Gly-NH₂ (Cyclic)

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 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: 86% (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:

Engin and Treit (2008) Dissociation of the anxiolytic-like effects of Avpr1a and Avpr1b receptor antagonists in the dorsal and ventral hippocampus. *Neuropeptides* **42** 411. PMID: 18508119.

Tsuchiya et al (2002) Vasopressin inhibits sarcolemmal ATP-sensitive K⁺ channels via V₁ receptors activation in the guinea pig heart. *Circ.J.* **66** 277. PMID: 11922278.

Spath et al (1996) Arginine vasopressin and oxyt. increase intracellular calcium and cAMP in human glomerular epithelial cells in culture. *Kidney Blood Press.Res.* **19** 81. PMID: 8871886.

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