

Product Name: PACAP 1-27

Catalog No.: 1183

Batch No.: 22

CAS Number: 127317-03-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄₂H₂₂₄N₄₀O₃₉S
Batch Molecular Weight: 3147.6
Physical Appearance: White lyophilised solid
Counter Ion: Acetate
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Val-Leu-NH₂

2. ANALYTICAL DATA

HPLC: Shows 95.6% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	3.00	2.99	Lys	3.00	3.11
Arg	2.00	2.07	Met	1.00	1.02
Asx	2.00	1.94	Phe	1.00	1.01
Cys	0.00	Not Detected	Pro	0.00	Not Detected
Glx	1.00	1.04	Ser	3.00	2.23
Gly	1.00	0.98	Thr	1.00	0.90
His	1.00	0.95	Trp	0.00	Not Detected
Ile	1.00	0.98	Tyr	3.00	2.84
Leu	2.00	2.08	Val	2.00	2.00

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

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CAS Number: 127317-03-7

Description:

PACAP 1-27 is an endogenous neuropeptide showing considerable homology with vasoactive intestinal peptide (VIP). Potently stimulates adenylyl cyclase.

Physical and Chemical Properties:Batch Molecular Formula: C₁₄₂H₂₂₄N₄₀O₃₉S

Batch Molecular Weight: 3147.6

Physical Appearance: White lyophilised solid

Peptide Sequence:

His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-
Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-
Lys-Tyr-Leu-Ala-Ala-Val-Leu-NH₂

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

Soluble to 1 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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: Acetate**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:

Michel *et al* (1998) XVI. International Union of Pharmacology recommendations for the nomenclature of neuropeptide Y, peptide YY, and pancreatic polypeptide receptors. *Pharmacol.Rev.* **50** 143. PMID: 9549761.

Hirose *et al* (1997) Pituitary adenylate cyclase-activating polypeptide-27 causes a biphasic chronotropic effect and atrial fibrillation in autonomically decentralized, anaesthetized dogs. *J.Pharmacol.Exp.Ther.* **283** 478. PMID: 9353360.

Rawlings *et al* (1994) Pituitary adenylate cyclase-activating polypeptide increase [Ca²⁺]_i in rat gonadotrophs through an inositol trisphosphate-dependent mechanism. *J.Biol.Chem.* **269** 5680. PMID: 7907085.

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