

Certificate of Analysis

Product Name: Pancreatic Polypeptide (human)

Catalog No.: 1154

Batch No.: 16

CAS Number: 75976-10-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈₅H₂₈₇N₅₃O₅₄S₂
Batch Molecular Weight: 4181.7
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 0.70 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ala-Pro-Leu-Glu-Pro-Val-Tyr-Pro-Gly-Asp-Asn-Ala-Thr-Pro-Glu-Gln-Met-Ala-Gln-Tyr-Ala-Ala-Asp-Leu-Arg-Arg-Tyr-Ile-Asn-Met-Leu-Thr-Arg-Pro-Arg-Tyr-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.6% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

| Amino Acid Theoretical | | Actual | | Amino Acid Theoretical | | Actual | |
|------------------------|------|--------|-----|------------------------|------|--------|--|
| Ala | 5.00 | 4.76 | Lys | | | | |
| Arg | 4.00 | 3.96 | Met | 2.00 | 1.97 | | |
| Asx | 4.00 | 4.08 | Phe | | | | |
| Cys | | | Pro | 5.00 | 5.02 | | |
| Glx | 4.00 | 4.04 | Ser | | | | |
| Gly | 1.00 | 0.99 | Thr | 2.00 | 1.99 | | |
| His | | | Trp | | | | |
| Ile | 1.00 | 0.96 | Tyr | 4.00 | 3.96 | | |
| Leu | 3.00 | 3.01 | Val | 1.00 | 0.98 | | |

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

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CAS Number: 75976-10-2

Description:

Pancreatic Polypeptide (human) is an endogenous high affinity agonist for human NPY Y₄ receptor (K_i = 0.056 nM). Believed to play an important role in the function of the gastrointestinal tract.

Physical and Chemical Properties:Batch Molecular Formula: C₁₈₅H₂₈₇N₅₃O₅₄S₂

Batch Molecular Weight: 4181.7

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Pro-Leu-Glu-Pro-Val-Tyr-Pro-Gly-Asp-
Asn-Ala-Thr-Pro-Glu-Gln-Met-Ala-Gln-Tyr-
Ala-Ala-Asp-Leu-Arg-Arg-Tyr-Ile-Asn-Met-
Leu-Thr-Arg-Pro-Arg-Tyr-NH₂

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

Soluble to 0.70 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: 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:

Gehlert (1998) Multiple receptors for the pancreatic polypeptide (PP-fold) family: physiological implications. *Proc.Soc.Exp.Biol.Med.* **218** 7. PMID: 9572148.

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.

Bard et al (1995) Cloning and functional expression of a human Y₄ subtype receptor for pancreatic polypeptide, neuropeptide Y, and peptide YY. *J.Biol.Chem.* **270** 26762. PMID: 7592911.

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