

Certificate of Analysis

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Product Name: [Leu³¹,Pro³⁴]-Neuropeptide Y (human, rat)

Catalog No.: 1176

Batch No.: 15

CAS Number: 132699-73-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₈₉ H ₂₈₄ N ₅₄ O ₅₆ S
Batch Molecular Weight:	4241
Physical Appearance:	White lyophilised solid
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Tyr-Pro-Ser-Lys-Pro-Asp-Asn-Pro-Gly-Glu- Asp-Ala-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr- Tyr-Ser-Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu- Leu-Thr-Arg-Pro-Arg-Tyr-NH ₂

2. ANALYTICAL DATA

HPLC:	Shows 97.3% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	4.00	3.81	Lys	1.00	1.07
Arg	4.00	4.08	Met	1.00	1.05
Asx	5.00	5.15	Phe		
Cys			Pro	5.00	4.96
Glx	2.00	2.03	Ser	2.00	2.07
Gly	1.00	1.07	Thr	1.00	1.03
His	1.00	1.10	Trp		
Ile	1.00	0.95	Tyr	5.00	5.17
Leu	3.00	3.15	Val		

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

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Catalog No.: 1176

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CAS Number: 132699-73-1

Description:

[Leu³¹,Pro³⁴]-Neuropeptide Y (human, rat) is a high affinity neuropeptide Y Y₁ receptor agonist (K_i = 0.39 nM). Also shows affinity for Y₄ and Y₅ receptors.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₈₉H₂₈₄N₅₄O₅₆S

Batch Molecular Weight: 4241

Physical Appearance: White lyophilised solid

Peptide Sequence:

Tyr-Pro-Ser-Lys-Pro-Asp-Asn-Pro-Gly-Glu-
Asp-Ala-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr-
Tyr-Ser-Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-
Leu-Thr-Arg-Pro-Arg-Tyr-NH₂

Storage: Store 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.

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:

Kask et al (1998) Evidence for involvement of neuropeptide Y receptors in the regulation of food intake: studies with Y₁-selective antagonist BIBP3226. *Br.J.Pharmacol.* **124** 1507. PMID: 9723965.

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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