

Certificate of Analysis

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Product Name: Neuropeptide Y 13-36 (porcine)

Catalog No.: 1177

Batch No.: 9

CAS Number: 113662-54-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃₅H₂₀₉N₄₁O₃₆
Batch Molecular Weight: 2983
Physical Appearance: White lyophilised solid
Net Peptide Content: 74.2%
Counter Ion: TFA
Solubility: Soluble to 0.80 mg/ml in water
Storage: Desiccate at -20°C
Peptide Sequence: Pro-Ala-Glu-Asp-Leu-Ala-Arg-Tyr-Tyr-Ser-
 Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Ile-Thr-
 Arg-Gln-Arg-Tyr-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	3.00	2.93	Lys		
Arg	4.00	3.98	Met		
Asx	2.00	1.98	Phe		
Cys			Pro	1.00	0.88
Glx	2.00	2.00	Ser	1.00	0.85
Gly			Thr	1.00	0.90
His	1.00	1.00	Trp		
Ile	2.00	1.92	Tyr	4.00	3.76
Leu	3.00	2.99	Val		

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

Product Information

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Description:

Neuropeptide Y₂ receptor agonist.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃₅H₂₀₉N₄₁O₃₆

Batch Molecular Weight: 2983

Physical Appearance: White lyophilised solid

Peptide Sequence:

Pro-Ala-Glu-Asp-Leu-Ala-Arg-Tyr-Tyr-Ser-
Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Ile-Thr-
Arg-Gln-Arg-Tyr-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 0.80 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: 74.2% (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:

Aguirre et al (1990) Centrally injected neuropeptide Y (13-36) produces vasopressor effects and antagonizes the vasodepressor action of neuropeptide Y (1-36) in the awake male rat. *Neurosci.Lett.* **118** 5. PMID: 2259468.

Martire et al (1993) Region-specific inhibition of potassium-evoked [³H]noradrenaline release from rat brain synaptosomes by neuropeptide Y-(13-36). Involvement of NPY receptors of the Y₂ type. *Eur.J.Pharmacol.* **230** 231. PMID: 8422905.

Aguirre et al (1995) Increased vasopressor actions of intraventricular neuropeptide Y-(13-36) in spontaneously hypertensive versus normotensive Wistar-Kyoto rats. Possible relationship to increases in Y₂ receptor binding in the nucleus tractus solitarius. *Brain Res.* **684** 159. PMID: 7583217.

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