

Certificate of Analysis

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Product Name: Neurotensin

Catalog No.: 1909

Batch No.: 14

CAS Number: 39379-15-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇₈H₁₂₁N₂₁O₂₀
Batch Molecular Weight: 1672.94
Physical Appearance: White lyophilised solid
Counter Ion: Trifluoroacetate
Solubility: Soluble to 0.70 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Glp-Leu-Tyr-Glu-Asn-Lys-Pro-Arg-Arg-Pro-Tyr-Ile-Leu

2. ANALYTICAL DATA

HPLC: Shows 98.1% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys	1.00	0.99
Arg	2.00	1.98	Met		
Asx	1.00	1.02	Phe		
Cys			Pro	2.00	2.02
Glx	2.00	2.04	Ser		
Gly			Thr		
His			Trp		
Ile	1.00	0.99	Tyr	2.00	1.98
Leu	2.00	1.98	Val		

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

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Description:

Neurotensin is a brain and gastrointestinal peptide with many central and peripheral functions. Acts as neuromodulator of dopamine transmission and exerts potent hypothermic and analgesic effects. Peripherally, acts as a paracrine and endocrine modulator of the digestive tract and cardiovascular system.

Physical and Chemical Properties:

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Physical Appearance: White lyophilised solid

Peptide Sequence:

Glp-Leu-Tyr-Glu-Asn-Lys-Pro-Arg-Arg-Pro-
Tyr-Ile-Leu

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: Trifluoroacetate

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:

Binder *et al* (2001) Neurotensin and DA interactions. *Pharmacol.Rev.* **53** 453. PMID: 11734615.

Tyler-McMahon (2000) Neurotensin: peptide for the next millenium. *Regul.Pept.* **93** 125. PMID: 11033059.

Vincent *et al* (1999) Neurotensin and neurotensin receptors. *TiPS* **20** 302. PMID: 10390649.

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