

Certificate of Analysis

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Product Name: Neurokinin B (human, porcine)

Catalog No.: 1582

Batch No.: 12

CAS Number: 86933-75-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₅H₇₉N₁₃O₁₄S₂
Batch Molecular Weight: 1210.43
Physical Appearance: White lyophilised solid
Counter Ion: Trifluoroacetate
Solubility: Soluble to 1 mg/ml in DMSO
Storage: Store at -20°C
Peptide Sequence: Asp-Met-His-Asp-Phe-Phe-Val-Gly-Leu-Met-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.9% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg			Met	2.00	1.96
Asx	2.00	2.06	Phe	2.00	1.99
Cys			Pro		
Glx			Ser		
Gly	1.00	1.00	Thr		
His	1.00	0.99	Trp		
Ile			Tyr		
Leu	1.00	1.01	Val	1.00	0.99

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

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Catalog No.: 1582

Batch No.: 12

CAS Number: 86933-75-7

Description:

Neurokinin B (human, porcine) is an endogenous tachykinin agonist peptide that shows preference for the NK₃ receptor (EC₅₀ = 1 nM).

Physical and Chemical Properties:

Batch Molecular Formula: C₅₅H₇₉N₁₃O₁₄S₂

Batch Molecular Weight: 1210.43

Physical Appearance: White lyophilised solid

Peptide Sequence:

Asp-Met-His-Asp-Phe-Phe-Val-Gly-Leu-Met-NH₂

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in DMSO

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. We recommend that solutions in DMSO are freshly prepared and used on the same day.

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:

Severini *et al* (2002) The tachykinin peptide family. *Pharmacol.Rev.* **54** 285. PMID: 12037144.

Wang *et al* (2001) Neurokinin B potentiates ATP-activated currents in rat DRG neurons. *Brain Res.* **923** 157. PMID: 11743983.

Laufer *et al* (1985) Neurokinin B is a preferred agonist for a neuronal substance P receptor and its action is antagonized by enkephalin. *Proc.Natl.Acad.Sci.U.S.A.* **82** 7444. PMID: 2414777.

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