

Certificate of Analysis

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Product Name: MEN 10376

Catalog No.: 1632

Batch No.: 3

CAS Number: 135306-85-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₇H₆₈N₁₂O₁₀
Batch Molecular Weight: 1081.24
Physical Appearance: Off-white lyophilised solid
Net Peptide Content: 93%
Counter Ion: TFA
Storage: Desiccate at -20°C
Peptide Sequence: Asp-Tyr-D-Trp-Val-D-Trp-D-Trp-Lys-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.7% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys	1.00		0.96
Arg				Met			
Asx	1.00		0.97	Phe			
Cys				Pro			
Glx				Ser			
Gly				Thr			
His				Trp	3.00		Detected
Ile				Tyr	1.00		1.01
Leu				Val	1.00		1.02

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

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Tel: +1 612 379 2956

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CAS Number: 135306-85-3

Description:

Potent and selective NK₂ receptor antagonist (pA₂ = 8.08, rabbit pulmonary artery). Displays > 250-fold selectivity over NK₁ (pA₂ = 5.66, guinea pig ileum) and NK₃ (K_i > 10 mM, guinea pig brain). Active in vivo.

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Peptide Sequence:

Asp-Tyr-D-Trp-Val-D-Trp-D-Trp-Lys-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:

Most peptides are soluble in distilled water. If the peptide does not completely dissolve addition of 0.1M acetic acid (those containing Arg, Lys, His) or 0.1M ammonia (those containing Asp, Glu) may help. Occasionally 10% DMSO or DMF may be required for extremely insoluble peptides. In addition to these measures sonification may also be helpful.

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: 93% (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:

Subramanian et al (1994) Pharmacological evidence of tachykinin-induced intracellular calcium rise in a human NK₂ receptor transfected cell line. *Biochem.Biophys.Res.Commun.* **200** 1512. PMID: 8185607.

Bartho et al (1992) Tachykininergic transmission to the circular muscle of the guinea-pig ileum: evidence for the involvement of NK₂ receptors. *Br.J.Pharmacol.* **105** 805. PMID: 1380373.

Maggi et al (1991) *In vivo* evidence for tachykininergic transmission using a new NK-2 receptor-selective antagonist, MEN 10,376. *J.Pharmacol.Exp.Ther.* **257** 1172. PMID: 1710662.

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