

Certificate of Analysis

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Product Name: BIM 23127

Catalog No.: 1839

Batch No.: 3

CAS Number: 160161-61-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆₂H₇₁N₁₁O₉S₂
Batch Molecular Weight: 1178.43
Physical Appearance: White lyophilised solid
Net Peptide Content: 90%
Counter Ion: Acetate
Solubility: Soluble to 2 mg/ml in 20% acetonitrile
Storage: Desiccate at -20°C
Peptide Sequence: $\overline{\text{D-Nal-Cys-Tyr-D-Trp-Orn-Val-Cys-Nal-NH}_2}$

2. ANALYTICAL DATA

HPLC: Shows >96% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys		
Arg			Met		
Asx			Phe		
Cys			Pro		
Glx			Ser		
Gly			Thr		
His			Trp		
Ile			Tyr	1.00	1.04
Leu			Val	1.00	0.96

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

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Description:

Neuromedin B receptor (NMB-R, BB₁) antagonist (K_i values are 20.9 and > 10000 nM for NMB and gastrin-releasing peptide receptors respectively). Selectively blocks NMB-suppressed glucose intake in vivo. Also a potent urotensin-II receptor antagonist (pA₂ = 7.5 - 7.7) and displays affinity for somatostatin and μ-opioid receptors.

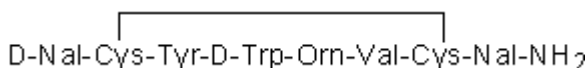
Physical and Chemical Properties:

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Batch Molecular Weight: 1178.43

Physical Appearance: White lyophilised solid

Peptide Sequence:



Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 2 mg/ml in 20% acetonitrile

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: 90% (Remaining weight made up of counterions and residual water).

Counter Ion: Acetate

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:

Ladenheim et al (1994) Blockade of feeding inhibition by neuromedin B using a selective receptor antagonist. *Eur.J.Pharmacol.* **271** R7. PMID: 7698191.

Santo-Yamada et al (2003) Blockade of bombesin-like peptide receptors impairs inhibitory avoidance learning in mice. *Neurosci.Lett.* **340** 65. PMID: 12648760.

Herold et al (2003) The neuromedin B receptor antagonist, BIM-23127, is a potent antagonist at human and rat urotensin-II receptors. *Br.J.Pharmacol.* **139** 203. PMID: 12770925.

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