

Certificate of Analysis

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Product Name: 187-1, N-WASP inhibitor

Catalog No.: 2067

Batch No.: 5

CAS Number: 380488-27-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₉₆ H ₁₂₂ N ₁₈ O ₁₆
Batch Molecular Weight:	1784.13
Physical Appearance:	White lyophilised solid
Net Peptide Content:	79%
Counter Ion:	TFA
Solubility:	Soluble to 2 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	cyclo(Lys-D-Phe-D-Pro-D-Phe-Phe-D-Pro-Gln) ₂

2. ANALYTICAL DATA

HPLC:	Shows 99% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	2.00	1.85	
Arg				Met			
Asx				Phe	6.00	5.97	
Cys				Pro	4.00	4.16	
Glx	2.00	1.93		Ser			
Gly				Thr			
His				Trp			
Ile				Tyr			
Leu				Val			

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

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CAS Number: 380488-27-7

Description:

Inhibits neural Wiskott-Aldrich syndrome protein (N-WASP) by stabilizing the autoinhibited state of the protein. Blocks phosphatidylinositol 4,5-bisphosphate (PIP₂)-stimulated actin assembly (IC₅₀ ~ 2 μM) but does not directly inhibit actin polymerization.

Physical and Chemical Properties:Batch Molecular Formula: C₉₆H₁₂₂N₁₈O₁₆

Batch Molecular Weight: 1784.13

Physical Appearance: White lyophilised solid

Peptide Sequence:cyclo(Lys-D-Phe-D-Pro-D-Phe-Phe-D-Pro-Gln)₂**Storage:** Desiccate at -20°C**Solubility & Usage Info:**

Soluble to 2 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: 79% (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:

Prehoda and Lim (2002) How signaling proteins integrate multiple inputs: a comparison of N-WASP and cdk2. *Curr.Opin.Cell Biol.* **14** 149. PMID: 11891112.

Peterson et al (2001) A chemical inhibitor of N-WASP reveals a new mechanism for targeting protein interactions. *Proc.Natl.Acad.Sci.USA* **98** 10624.

Suetsugu et al (2001) Identification of another actin-related (Arp) 2/3 complex binding site in neural Wiskott-Aldrich syndrome protein (N-WASP) that complements actin polymerization induced by the Arp2/3 complex activating (VCA) domain of N-WASP. *J.Biol.Chem.* **276** 33175. PMID: 11432863.

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