

Product Name: P11
CAS Number: 848644-86-0

Catalog No.: 4744 **Batch No.:** 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₄₈N₁₂O₉
Batch Molecular Weight: 720.78
Physical Appearance: White lyophilised solid
Net Peptide Content: 58%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in 20% acetonitrile - 0.1% acetic acid
Storage: Store at -20°C
Peptide Sequence: His-Ser-Asp-Val-His-Lys-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	1.00	0.99	
Arg				Met			
Asx	1.00	1.01		Phe			
Cys				Pro			
Glx				Ser	1.00	0.99	
Gly				Thr			
His	2.00	1.89		Trp			
Ile				Tyr			
Leu				Val	1.00	0.91	

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Description:

Potent antagonist of the integrin $\alpha_v\beta_3$ -vitronectin interaction (IC_{50} = 25.72 nM). Blocks proliferation and induces apoptosis in HUVECs; antiangiogenic.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{30}H_{48}N_{12}O_9$
Batch Molecular Weight: 720.78
Physical Appearance: White lyophilised solid

Peptide Sequence:

His-Ser-Asp-Val-His-Lys-NH₂

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 20% acetonitrile - 0.1% acetic acid

Net Peptide Content: 58% (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:

Lee et al (2004) High-throughput screening of novel peptide inhibitors of an integrin receptor from the hexapeptide library by using a protein microarray chip. *J.Biomol.Screen.* **9** 687. PMID: 15634795.

Choi et al (2010) Site-specific inhibition of integrin alpha v beta 3-vitronectin association by a ser-asp-val sequence through an Arg-Gly-Asp-binding site of the integrin. *Proteomics* **10** 72. PMID: 19882657.

Bang et al (2011) Pharmacoproteomic analysis of a novel cell-permeable inhibitor of tumor-induced angiogenesis. *Mol.Cell Proteomics* **10** M110. PMID: 21558493.

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