

Certificate of Analysis

Product Name: [Ala^{2,8,9,11,19,22,24,25,27,28}]-VIP

Catalog No.: 3095

Batch No.: 2

CAS Number: 866552-34-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₃₁ H ₂₁₉ N ₄₁ O ₃₃ S
Batch Molecular Weight:	2928.49
Physical Appearance:	White lyophilised solid
Net Peptide Content:	77%
Counter Ion:	TFA
Solubility:	Soluble to 2 mg/ml in 10% acetonitrile
Storage:	Store at -20°C
Peptide Sequence:	His-Ala-Asp-Ala-Val-Phe-Thr-Ala-Ala-Tyr- Ala-Arg-Leu-Arg-Lys-Gln-Met-Ala-Ala-Lys- Lys-Ala-Leu-Ala-Ala-Ile-Ala-Ala-NH ₂

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	12.00	11.93	Lys	3.00	2.90
Arg	2.00	2.06	Met	1.00	0.70
Asx	1.00	0.93	Phe	1.00	0.92
Cys			Pro		
Glx	1.00	0.99	Ser		
Gly			Thr	1.00	1.10
His	1.00	0.90	Trp		
Ile	1.00	1.00	Tyr	1.00	0.99
Leu	2.00	2.04	Val	1.00	0.97

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

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Description:

Highly selective agonist for the VPAC₁ receptor (IC₅₀ values are ~ 11.5-13.2 and > 30000 nM for VPAC₁ and VPAC₂ receptors respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃₁H₂₁₉N₄₁O₃₃S

Batch Molecular Weight: 2928.49

Physical Appearance: White lyophilised solid

Peptide Sequence:

His-Ala-Asp-Ala-Val-Phe-Thr-Ala-Ala-Tyr-
Ala-Arg-Leu-Arg-Lys-Gln-Met-Ala-Ala-Lys-
Lys-Ala-Leu-Ala-Ala-Ile-Ala-Ala-NH₂

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 mg/ml in 10% acetonitrile

Net Peptide Content: 77% (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:

Igarashi *et al* (2005) Development of simplified vasoactive intestinal peptide analogs with receptor selectivity and stability for human vasoactive intestinal peptide/pituitary adenylate cyclase-activating polypeptide receptors. *J.Pharmacol.Exp.Ther.* **315** 370. PMID: 15994369.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956