

Certificate of Analysis

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Product Name: VIP (human, rat, mouse, rabbit, canine, porcine)

Catalog No.: 1911

Batch No.: 20

CAS Number: 40077-57-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄₇H₂₃₈N₄₄O₄₂S
Batch Molecular Weight: 3325.83
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.1% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala	2.00	1.96	Lys	3.00	3.04
Arg	2.00	2.00	Met	1.00	1.00
Asx	5.00	5.15	Phe	1.00	1.01
Cys			Pro		
Glx	1.00	1.04	Ser	2.00	1.40
Gly			Thr	2.00	1.73
His	1.00	0.98	Trp		
Ile	1.00	1.01	Tyr	2.00	1.81
Leu	3.00	3.03	Val	2.00	1.97

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

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

Product Name: VIP (human, rat, mouse, rabbit, canine, porcine)**Catalog No.:** 1911**Batch No.:** 20

CAS Number: 40077-57-4

Description:

VIP (human, rat, mouse, rabbit, canine, porcine) is a neuropeptide with many biological actions; plays a role in neurotransmission, smooth muscle relaxation and has trophic and mitogenic actions.

Physical and Chemical Properties:Batch Molecular Formula: C₁₄₇H₂₃₈N₄₄O₄₂S

Batch Molecular Weight: 3325.83

Physical Appearance: White lyophilised solid

Peptide Sequence:

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

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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.

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:

Laburthe and Couvineau (2002) Molecular pharmacology and structure of VPAC receptors for VIP and PACAP. *Regul. Pept.* **108** 165. PMID: 12220741.

Harmar et al (1998) International Union of Pharmacology. XVIII. Nomenclature of receptors for vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide. *Pharmacol. Rev.* **50** 265. PMID: 9647867.

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bio-techne.cominfo@bio-techne.com
techsupport@bio-techne.com**North America**

Tel: (800) 343 7475

Chinainfo.cn@bio-techne.com
Tel: +86 (21) 52380373**Europe Middle East Africa**

Tel: +44 (0)1235 529449

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Tel: +1 612 379 2956