

# **Certificate of Analysis**

Print Date: Feb 28th 2024

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Product Name: [D-p-CI-Phe<sup>6</sup>,Leu<sup>17</sup>]-VIP Catalog No.: 3054 Batch No.: 11

CAS Number: 102805-45-8

# 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C<sub>148</sub>H<sub>239</sub>ClN<sub>44</sub>O<sub>42</sub>

Batch Molecular Weight: 3342.24

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-p-Cl-D-Phe-Thr-Asp-Asn-

Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Leu-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-IIe-Leu-Asn-NH<sub>2</sub>

2. ANALYTICAL DATA

HPLC: Shows 97.5 % purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	l Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	2.00	1.99	Lys	3.00	3.03
Arg	2.00	1.92	Met		
Asx	5.00	5.12	Phe		
Cys			Pro		
Glx	1.00	1.01	Ser	2.00	1.99
Gly			Thr	2.00	1.92
His	1.00	0.97	Trp		
lle	1.00	0.98	Tyr	2.00	2.04
Leu	4.00	4.14	Val	2.00	1.95

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



# **Product Information**

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CAS Number: 102805-45-8

#### **Description:**

[D-p-Cl-Phe $^6$ ,Leu $^{17}$ ]-VIP is a selective vasoactive intestinal peptide (VIP) receptor antagonist (IC $_{50}$  = 125.8 nM). Displays no activity on glucagon, secretin or GRF receptors.

### **Physical and Chemical Properties:**

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Physical Appearance: White lyophilised solid

#### **Peptide Sequence:**

His-Ser-Asp-Ala-Val-p-Cl-D-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Leu-Ala-Val-Lys-Lys-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-NH<sub>2</sub> 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 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  $\mu$ m filter to remove potential bacterial contamination whenever possible.

#### References:

Xie et al (2007) Vasoactive intestinal peptide transactivates the androgen receptor through a protein kinase A-dependent extracellular signal-regulated kinase pathway in prostate cancer LNCaP cells. Mol.Pharmacol. 72 73. PMID: 17430995.

**Pozo** *et al* (1997) Characterization of VIP receptor-effector system antagonists in rat and mouse peritoneal macrophages. Eur.J.Pharmacol. *321* 379. PMID: 9085051.

Pandol et al (1986) Vasoactive intestinal peptide receptor antagonist [4Cl-D-Phe6,Leu17]VIP. Am.J.Physiol. 250 G553. PMID: 2421587.