

# Certificate of Analysis

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**Product Name:** Compstatin

**Catalog No.:** 2585

**Batch No.:** 20

CAS Number: 206645-99-0

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>66</sub>H<sub>99</sub>N<sub>23</sub>O<sub>17</sub>S<sub>2</sub>  
**Batch Molecular Weight:** 1550.77  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 72%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:**

Ile-Cys-Val-Val-Gln-Asp-Trp-Gly-His-His-  
Arg-Cys-Thr-NH<sub>2</sub>

## 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		
Arg	1.00	1.03	Met		
Asx	1.00	0.60	Phe		
Cys	2.00	Detected	Pro		
Glx	1.00	0.99	Ser		
Gly	1.00	1.02	Thr	1.00	0.98
His	2.00	1.85	Trp	1.00	Detected
Ile	1.00	0.98	Tyr		
Leu			Val	2.00	1.73

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

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**Description:**

Complement inhibitor; binds C3 inhibiting proteolytic cleavage by C3 convertase (IC<sub>50</sub> = 28 μM) and activation of classical and alternative complement pathways (IC<sub>50</sub> values are 63 and 12 μM respectively). Prolongs graft survival and reduces hyperacute rejection of ex vivo pig kidneys perfused with human blood and inhibits in vivo heparin/protamine-induced complement activation in primates. Control Peptide also available.

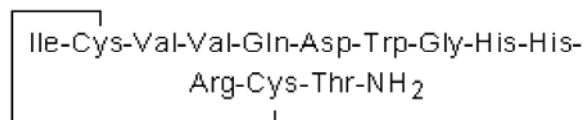
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>66</sub>H<sub>99</sub>N<sub>23</sub>O<sub>17</sub>S<sub>2</sub>

Batch Molecular Weight: 1550.77

Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**Storage:** Store 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:** 72% (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:**

**Soulika et al** (2000) Inhibition of heparin/protamine complex-induced complement activation by compstatin in baboons. *Clin.Immunol.* **96** 212. PMID: 10964539.

**Fiane et al** (1999) Compstatin, a peptide inhibitor of C3, prolongs survival of ex vivo perfused pig xenografts. *Xenotransplantation* **6** 52. PMID: 10355733.

**Sahu et al** (1996) Inhibition of human complement by a C3-binding peptide isolated from a phage-displayed random peptide library. *J.Immunol.* **157** 884. PMID: 8752942.

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