



# **Certificate of Analysis**

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Product Name: SP 10 Catalog No.: 7322 Batch No.: 1

CAS Number: 882157-88-2

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{56}H_{94}N_{14}O_{20}S$ 

**Batch Molecular Weight:** 1315.5

Physical Appearance: White lyophilised solid

Net Peptide Content: 81%
Counter Ion: TFA

**Solubility:** Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Ser-Thr-Ser-Gln-Lys-Ser-Ile-Val-Ala-Tyr-

Thr-Met

2. ANALYTICAL DATA

**HPLC:** Shows 99% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

| Amino Acid Theoretical Actual Amino Acid Theoretical Actual |      |      |     |      |      |
|---|------|------|-----|------|------|
| Ala   | 1.00 | 0.96 | Lys | 1.00 | 1.02 |
| Arg   |      |      | Met | 1.00 | 0.97 |
| Asx   |      |      | Phe |      |      |
| Cys   |      |      | Pro |      |      |
| Glx   | 1.00 | 0.98 | Ser | 3.00 | 3.04 |
| Gly   |      |      | Thr | 2.00 | 1.96 |
| His   |      |      | Trp |      |      |
| lle   | 1.00 | 0.86 | Tyr | 1.00 | 1.03 |
| Leu   |      |      | Val | 1.00 | 0.85 |

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# **Product Information**

Print Date: Jan 11th 2021

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#### **Description:**

Peptide originally derived from SARS-CoV Spike (S) protein; corresponds to amino acid residues 668 to 679. Highly potent inhibitor of SARS-CoV S protein and ACE2 interaction (IC $_{50}$  = 1.88 nM in biochemical assay). Inhibits interaction of SARS-CoV S protein and Vero E6 cells in vitro. Please note, this peptide displays 80% sequence identity to homologous site on SARS-CoV-2 S-protein (residues 689-697).

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

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Physical Appearance: White lyophilised solid

**Peptide Sequence:** 

Ser-Thr-Ser-Gln-Lys-Ser-Ile-Val-Ala-Tyr-Thr-Met Storage: Store at -20°C

## Solubility & Usage Info:

Soluble to 1 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:** 81% (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 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:

**Ho** et al (2006) Design and biological activities of novel inhibitory peptides for SARS-CoV spike protein and angiotensin-converting enzyme 2 interaction. Antiviral Res. **69** 70. PMID: 16337697.

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