

Product Name: SBP1-FITC

Catalog No.: 7232

Batch No.: 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅₉H₂₁₇N₃₃O₅₁S
Batch Molecular Weight: 3438.68
Physical Appearance: Yellow lyophilised solid
Net Peptide Content: 83%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in 0.1M PBS (pH 7.4)
Storage: Store at -20°C
Peptide Sequence: FITC-PEG4-Ile-Glu-Glu-Gln-Ala-Lys-Thr-Phe-Leu-Asp-Lys-Phe-Asn-His-Glu-Ala-Glu-Asp-Leu-Phe-Tyr-Gln-Ser-NH₂

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		2.00	1.93	Lys		2.00	2.06
Arg				Met			
Asx		3.00	3.01	Phe		3.00	3.04
Cys				Pro			
Glx		6.00	5.91	Ser		1.00	1.00
Gly				Thr		1.00	1.04
His		1.00	0.95	Trp			
Ile		1.00	0.96	Tyr		1.00	1.04
Leu		2.00	2.04	Val			

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

Product Name: SBP1-FITC**Catalog No.:** 7232**Batch No.:** 1**Description:**

Fluorescently labelled peptide derived from human ACE2 (SBP1, Cat. No. 7233). Composed of SBP1 conjugated to FITC (Fluorescein-5-isothiocyanate; Cat. No. 5440). SBP1 binds receptor binding domain (RBD) of insect-derived SARS-CoV-2 spike protein ($K_D = 1.3 \mu\text{M}$ for N-terminal biotinylated, insect-derived spike protein RBD; see Zhang et al preprint publication). Please note - unpublished, in-house data suggests SBP1 has approximately 75-fold lower affinity for insect-derived SARS-CoV-2 RBD than reported by Zhang et al.

Physical and Chemical Properties:Batch Molecular Formula: $\text{C}_{159}\text{H}_{217}\text{N}_{33}\text{O}_{51}\text{S}$

Batch Molecular Weight: 3438.68

Physical Appearance: Yellow lyophilised solid

Peptide Sequence:FITC-PEG4-Ile-Glu-Glu-Gln-Ala-Lys-Thr-Phe-
Leu-Asp-Lys-Phe-Asn-His-Glu-Ala-Glu-Asp-
Leu-Phe-Tyr-Gln-Ser-NH₂**Storage:** Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

Soluble to 1 mg/ml in 0.1M PBS (pH 7.4)

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: 83% (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:

Zhang *et al* (2020) The first-in-class peptide binder to the SARS-CoV-2 spike protein. BioRxiv - Paper not yet peer reviewed..

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