

Recombinant COVID-19 Spike protein, His-tagged

Cat. No. S1-137V Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant COVID-19 Spike protein (16-685aa) was fused to His-tag at the N-terminus and expressed in Yeast.
Species	Sars-CoV-2
Source	Yeast
ProteinLength	16-685 a.a.
Description	It's been reported that Coronavirus can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.
Form	Lyophilized powder. Lyophilized from a 0.2 µm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.
Molecular Mass	88.1 kDa
AA Sequence	VNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHVSG TNGTKRFDNPVLPFNDGVYFASTSEKSNIIRGWIFGTTLDSTQSLIVNNTNVIKVC EFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLEGKQGNF

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KNLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTLALHR
 SYLTPGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETKCTL
 KSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRRKRISNC
 VADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIA
 DYNKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRFRKSNLKPFERDISTEIQAG
 STPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTN
 LVKNKCVNFNFNGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPC
 SFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTR
 AGCLIGAEHVNNSYECDIPIGAGICASYQTQTNSPRRAR

Purity Greater than 90% as determined by SDS-PAGE.

Storage The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.

Reconstitution We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Handling Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

GENE INFORMATION

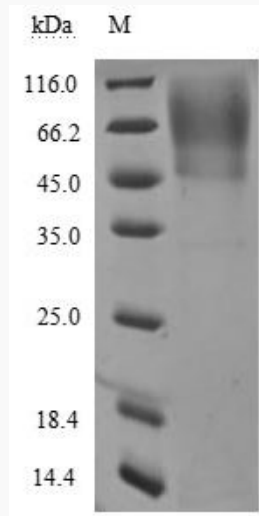
Gene Name S

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Official Symbol	S
Synonyms	spike glycoprotein
Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

SDS-PAGE of S1-137V

(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Predicted band size: 88.1 kDa

Observed band size: 100 kDa due to glycosylation

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