

Human CellExp™ SARS-CoV-2 Spike Protein (S1), Recombinant

CATALOG NO: P1555-10 10 µg
P1555-50 50 µg

ALTERNATE NAMES: S1 protein, Spike glycoprotein Subunit1, S glycoprotein Subunit1, Spike protein S1, novel coronavirus s1 Protein

MOL. WT. 103 kDa (Fc, 6x His tag at the C-terminus)

SOURCE: HEK 293 cells

PURITY: >90% SDS - PAGE

ENDOTOXIN: < 0.1 EU/µg of the protein by LAL method

FORM: Lyophilized

FORMULATION: Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

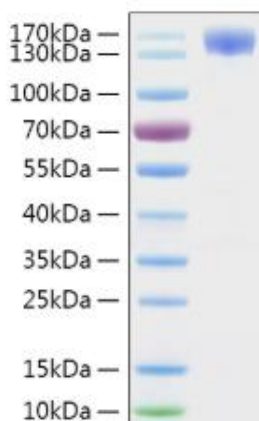
RECONSTITUTION: Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.

SPECIFIC ACTIVITY: Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human ACE2 at 2 µg/mL (100 µL/well) can bind Recombinant SARS-CoV-2 Spike S1; the EC₅₀ of SARS-COV-2 Spike S1 is 6.79 ng/mL. Immobilized Human ACE2 on COOH Chip, can bind SARS-CoV-2 Spike S1 with an affinity constant of 90.8 nM as determined in a SPR assay

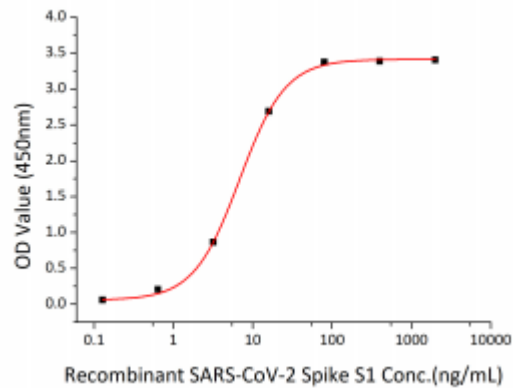
STORAGE CONDITIONS: Store the lyophilized protein at -20°C to -80 °C. After reconstitution, store at -20°C for 3 months. This protein is stable at ≤ -70°C for up to 6 months. For optimal storage, aliquot into smaller quantities after centrifugation. Avoid repeated freeze/thaw cycles.

DESCRIPTION: SARS-CoV is an enveloped, single, and positive-stranded RNA virus. Cell entry of severe acute respiratory syndrome coronavirus (SARS-CoV) is mediated by the viral spike (S) protein. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. For viral entry, the surface unit (S1) of SARS S binds to the cellular receptor angiotensin-converting enzyme 2 (ACE2) and the transmembrane unit (S2) then fuses the viral membrane with a host cell membrane. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV. Because the S protein of SARS-CoV is involved in receptor recognition, as well as virus attachment and entry, it represents one of the most important targets for the development of SARS vaccines and therapeutics.

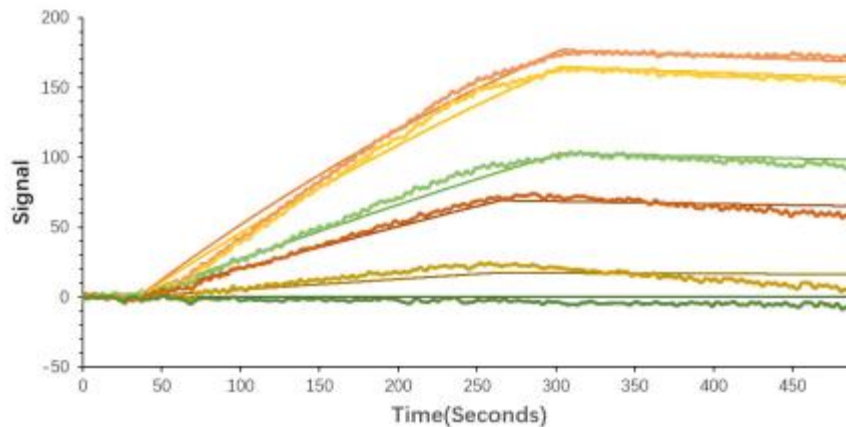
AMINO ACID SEQUENCE: Val 11-Arg 682



Recombinant SARS-CoV-2 Spike S1 Protein with hFc and His tag was determined by SDS-PAGE with Coomassie Blue, showing a band at 130-160 kDa.



Immobilized Recombinant Human ACE2 at 2 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Recombinant SARS-CoV-2 Spike S1; the EC_{50} of SARS-COV-2 Spike S1 is 6.79 ng/mL.



Immobilized Human ACE2 on COOH Chip, can bind SARS-CoV-2 Spike S1 with an affinity constant of 90.8 nM as determined in a SPR assay

RELATED PRODUCTS:

- Recombinant Coronavirus Nucleoprotein (SARS-CoV; 340-390) (P1508)
- Recombinant Coronavirus Spike Protein (SARS-CoV S1; 1-53, 90-115, 171-205, His tag) (P1516)
- Human CellExp™ Coronavirus Spike Protein (SARS-CoV-2; S1), Recombinant (P1524)
- Recombinant Coronavirus Spike Protein (SARS-CoV S2; 408-470, 540-573) (P1518)
- Human CellExp™ Coronavirus Spike Protein (SARS-CoV-2; S2), Recombinant (P1525)
- Recombinant Coronavirus Spike Protein (SARS-CoV S2; 408-470, 540-573, His Tag) (P1517)

FOR RESEARCH USE ONLY! Not to be used on humans.