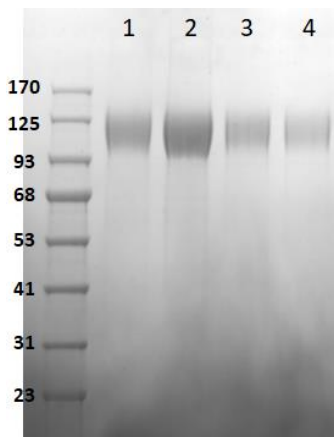


Human CellExp™ SARS-CoV-2 S1 (K417N), Recombinant

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|----------------------------|--|
| CATALOG NO: | P1663-10 10 µg P1663-50 50 µg |
| ALTERNATE NAMES: | S1 Protein, Spike glycoprotein subunit1, S glycoprotein subunit1, SARS-CoV-2 S1 Protein |
| MOL. WT. | ~120 kDa (8xHis tag at the C-terminus) |
| SOURCE: | HEK 293 cells |
| PURITY: | > 95% by SDS-PAGE |
| FORM: | Lyophilized |
| FORMULATION: | Lyophilized from 0.22 µm filtered PBS (pH 7.4) with 5% trehalose. |
| RECONSTITUTION: | Centrifuge the vial prior to opening. Reconstitute in sterile PBS (pH 7.4). Do not vortex. |
| STORAGE CONDITIONS: | Store lyophilized protein at -20 °C. Once reconstituted, aliquot and store at -20 °C or -70 °C. Avoid repeated freeze-thaw cycles. |

DESCRIPTION: SARS-CoV-2, the causative virus of COVID-19, uses the viral Spike (S) protein for host cell attachment and entry. The virus uses multiple host targets including the human protease Furin, Angiotensin converting enzyme 2 (ACE2), Neuropilin-1 (NRP1) and the transmembrane protease serine 2 (TMPRSS2) for host cell entry. The S protein has two domains S1 and S2, where S1 facilitates initial binding to the receptor and the S2 domain drives the membrane fusion and eventual entry of the virus. The S glycoprotein serves as an important target for monoclonal antibodies, entry inhibitors, and vaccines. Within the S1 protein, the conserved receptor-binding domain (RBD) binds with a high affinity for ACE2. Recently, fast-spreading variants were identified in the UK, South Africa, and Brazil. One of those variants of SARS-CoV-2 contains the K417N mutation, which is a lysine (K) to asparagine (N) substitution at position 417 in the RBD. Epidemiologist estimated that the new variant is roughly 50% more transmissible as compared to other dominant lineages based on the rate it spreads. According to the CDC, they also claim a moderate impact on neutralization by monoclonal antibody therapeutics and convalescent/post-vaccination sera.

AMINO ACID SEQUENCE: Val 16 - Arg 685



SDS-PAGE (4-20%) of Recombinant SARS-CoV-2 S1 Protein: 3 µg of the recombinant protein was loaded under reducing conditions and stained with Coomassie Blue. The protein migrates to around ~120 kDa due to glycosylation.

- 1) SARS-CoV-2 S1 (K417N) Cat# P1663
- 2) SARS-CoV-2 S1 (L452R) Cat# P1662
- 3) SARS-CoV-2 S1 (E484K) Cat# P1664
- 4) SARS-CoV-2 S1 (N501Y) Cat# P1665

RELATED PRODUCTS:

- Human CellExp™ SARS-CoV-2 S1 Protein (D614G) (P1652)
- Furin, Human Recombinant (Cat. No. P1658)
- Human CellExp™ ACE2, Human Recombinant (P1535)
- Human CellExp™ SARS-CoV-2 Spike Protein (RBD 310-568) (P1543)
- Human CellExp™ SARS-CoV-2 Nucleoprotein, Recombinant (P1554)
- SARS-CoV-2 S1 Protein-ACE2 Binding Inhibitor Screening Kit (K2050)
- Angiotensin II Converting Enzyme (ACE2) Inhibitor Screening Kit (K310)

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