

COVID 19 Spike S1 (T95I, G142D, E154K, L452R, E484Q, D614G, P681R) Coronavirus Recombinant Protein | COVID-19 recombinant protein

2019-nCoV Spike protein S1 (T95I, G142D, E154K, L452R, E484Q, D614G, P681R)

CATALOG # AAA73328	HOST CHO cells
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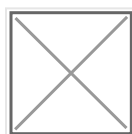
PRODUCT SYNONYMS

COVID 19 Spike S1 (T95I; G142D; E154K; L452R; E484Q; D614G; P681R) Coronavirus; 2019-nCoV Spike protein S1 (T95I; P681R); 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Spike S1 (T95I; 2019-nCoV s1; SARS-CoV-2 spike S1; SARS-CoV-2 S1; novel coronavirus spike s1; nCoV spike s1; SARS-CoV-2 Kappa variant; COVID-19 recombinant protein

PRODUCT SPECIFICATIONS

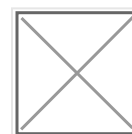
Host	CHO cells
Form/Format	Recombinant protein stored in 50mM sodium phosphate, pH7.5, 300mM NaCl, 150mM imidazole.
Concentration	1.0ug/ul (determined by densitometry) (varies by lot)
Tag	HIS
Species	Human
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



SDS-PAGE

Purity: Sample purity data. For lot-specific data, please refer to the specific datasheet.



Activity

Specific Activity: Sample activity data. For lot-specific data, please refer to the specific datasheet.

ADDITIONAL INFORMATION

Related Product Information for COVID-19 recombinant protein	Recombinant 2019-nCoV Spike protein S1 (T95I, G142D, E154K, L452R, E484Q, D614G, P681R)(16-685) was expressed in CHO cells using a C-terminal His-tag. The gene accession number is MN908947. The novel coronavirus SARS-CoV-2 has caused respiratory disease (COVID-19) pandemic around the world. The coronavirus spike glycoprotein (S) is a type I transmembrane protein that contains the S1 and S2 subunits and it interacts with the host cell angiotensin-converting enzyme 2 (ACE2) to facilitate viral genome entry (1). The Kappa variant (B.1.617.1 lineage) was first discovered in India and the mutations in the spike protein have reduced susceptibility to both monoclonal antibodies and convalescent plasma (2). Mutation E484Q increases the binding potential to ACE2 and mutation D614G increases viral infectivity (3). P681R mutation in the furin cleavage site promotes the cleavage rate of the S1-S2 making the virus more transmissible and more infectious (3). As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence, and their possible tendency to escape antibody neutralization (4).
Product Categories/Family for COVID-19 recombinant protein	COVID-19 Proteins ; COVID19

References

1. Zhou P, et al: A pneumonia outbreak associated with a new coronavirus of probable bat origin. Nature. 2020, 579:270-89.
2. Verghese M, et al: Identification of a SARS-CoV-2 variant with L452R and E484Q neutralization resistance mutations. J Clin Microbiol. 2021, JCM.00741-21. doi: <https://doi.org/10.1128/JCM.00741-21>
3. Saito A, et al: SARS-CoV-2 spike P681R mutation enhances and accelerates viral fusion. bioRxiv. doi: <https://doi.org/10.1101/2021.06.17.448820>.
4. Starr TN, et al: Molecular dynamic simulation reveals E484Q mutation enhances spike RBD-ACE2 affinity and the combination of E484Q, K417N and N501Y mutations (501Y.V2 variant) induces conformational change greater than N501Y mutant alone, potentially resulting in an escape mutant. Cell. 2020, 182(5):1295-1310.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/covid-19-spike-s1-t95i-g142d-e154k-l452r-e484q-d614g-p681r-coronavirus-recombinant-protein-cho-cells/73328>