

COVID 19 Spike RBD (K417T, E484K and N501Y) Coronavirus Recombinant Protein | COVID-19 recombinant protein

2019-nCoV Spike protein RBD (K417T, E484K and N501Y)

CATALOG # AAA73334	HOST CHO cells
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PRODUCT SYNONYMS

COVID 19 Spike RBD (K417T; E484K and N501Y) Coronavirus; 2019-nCoV Spike protein RBD (K417T; E484K and N501Y); 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Spike RBD (K417T; 2019-nCoV RBD; SARS-CoV-2 spike RBD; novel coronavirus spike RBD; nCoV spike RBD.; COVID-19 recombinant protein

PRODUCT SPECIFICATIONS

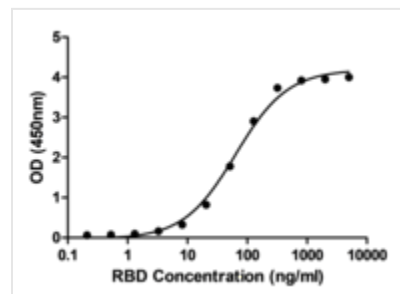
Host	CHO cells
Form/Format	Recombinant protein stored in 50mM sodium phosphate, pH7.5, 300mM NaCl, 150mM imidazole.
Tag	HIS
Species	SARS-CoV-2
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree 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

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 subunit, RBD (K417T, E484K, N501Y)(319-541) was expressed in CHO cells using a C-terminal his tag. The gene accession number is MN908947.

The receptor binding domain (RBD) of the SARS-CoV-2 spike glycoprotein that recognizes the host ACE2 receptor is a major determinant of viral entry and neutralization, and is the most divergent region (1). A variant of SARS-CoV-2 carrying K417T, E484K, and N501Y mutations in the RBD was detected in Manaus, Amazonas state Brazil. This variant belongs to P.1 lineage, which descends from an earlier Brazilian variant (B.1.1.28), and has been potentially associated with an increase in transmissibility or propensity for re-infections. E484K and N501Y mutations are of particular concern since they potentially reduce antibody neutralization and increase affinity for ACE2 receptor (2). As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization (3).

Product Categories/Family for COVID-19 recombinant protein	COVID-19 Proteins; Acute Respiratory Distress Syndrome; Cardiovascular Disease; Cell Cycle; Cellular Stress; COVID19; Gastrointestinal Diseases; Infectious Diseases; Inflammation; Lung Diseases; Metabolic Disorder; Neurobiology; severe acute respiratory s
References	1. Lan J, et al: Crystal structure of the 2019-nCov spike receptor-binding domain bound with the ACE2 receptor. bioRxiv. doi: https://doi.org/10.1101/2020.02.19.956235. 2. Garcia-Beltran WF, et al: Circulating SARS-CoV-2 variants escape neutralization by vaccine-induced humoral immunity. Preprint. medRxiv. 2021, doi:10.1101/2021.02.14.21251704. 3. Starr TN, et al: Molecular dynamic simulation reveals E484K mutation enhances spike RBD-ACE2 affinity and the combination of E484K, K417T 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-rbd-k417t-e484k-and-n501y-coronavirus-recombinant-protein-cho-cells/73334>