

Recombinant SARS-CoV-2 Spike protein RBD (K417T) Protein, His-tagged

Cat. No. S-1001S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV Spike protein S1 subunit, RBD (K417T) (319-541) was expressed in CHO cells using a C-terminal his tag.
Species	SARS-CoV-2
Source	CHO
ProteinLength	319-541 a.a.
Description	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. 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. As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.
Molecular Mass	~39 kDa
Purity	> 90%

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Stability	One year at -70 centigrade from date of shipment.
Storage	Store product at –70 centigrade. 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.
Concentration	1.0 µg/µL
Storage Buffer	Recombinant protein stored in 50 mM sodium phosphate, pH 7.5, 300 mM NaCl, 150 mM imidazole.

GENE INFORMATION

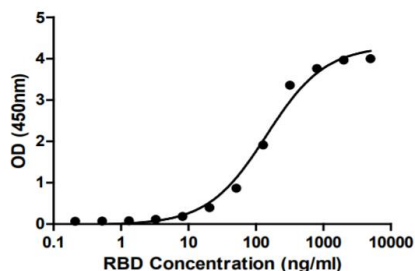
Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	S; surface glycoprotein; spike glycoprotein; surface glycoprotein; structural protein; spike protein
Gene ID	43740568
mRNA Refseq	MN908947
Protein Refseq	YP_009724390

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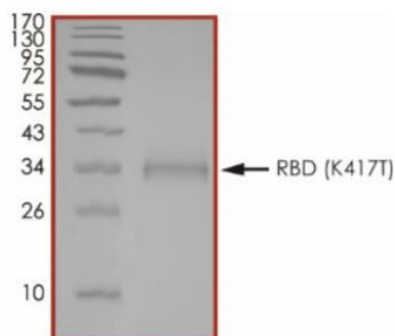
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Activity



Binding ability measured in a functional ELISA. 2019-nCoV Spike protein RBD (K417T) binds to immobilized human ACE2(19-740) protein.

SDS-PAGE



The purity of nCoV-RBD (K417T) was determined to be > 90% by densitometry.