

Recombinant SARS-CoV-2 B.1.351 Variant (South Africa) Spike RBD (K417N/E484K/N501Y) Mutant Protein, His-tagged

Cat. No. E-03S Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant protein of receptor binding domain (RBD, Arg319-Phe541) of severe acute respiratory syndrome coronavirus 2 South Africa variant (SARS-CoV-2 variant B.1.351, RBD K417N, E484K, N501Y, NC_045512.2), with a polyhistidine tag was expressed in human cells.

Species

SARS-CoV-2

Source

Human Cells

ProteinLength

319-541 a.a.

Description

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. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV-2 spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S RBD protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV-2 (2019-nCoV) as in recent COVID-19 outbreak.

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Molecular Mass	29.5 kDa
Endotoxin	Endotoxin level is < 0.1 ng/μg of protein (<1EU /μg)
Purity	>90% by SDS-PAGE gel and Coomassie Blue staining
Applications	Antigens, Western, ELISA and other in vitro binding or in vivo functional assays, and protein-protein interaction studies; For research & development use only!
Storage Buffer	Purified protein formulated in a sterile solution of PBS buffer, pH 7.2, without any preservatives

GENE INFORMATION

Gene Name	E envelope protein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	E
Synonyms	E; envelope protein; envelope protein; ORF4; structural protein; E protein
Gene ID	43740570
mRNA Refseq	MN908947
Protein Refseq	YP_009724390
UniProt ID	P0DTC2

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