Spike RBD Protein of SARS-CoV-2 (South Africa Variant)

CATALOG NUMBER: SCV2-RBD-SA50P

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Introduction	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the virus that causes COVID-19 (coronavirus disease 2019), the respiratory illness responsible for the COVID-19 pandemic. Many SARS-CoV-2 variants have been identified throughout the world since it's outbreak in late 2019; some are believed or have been believed to be of particular importance due to their potential for increased transmissibility, increased virulence, and reduced effectiveness of vaccines against them.
	The genome of SARS-CoV-2 has 89% nucleotide identity with bat SARS-like-CoVZXC21 and 82% with that of human SARS-CoV. The phylogenetic trees of their orf1a/b, Spike, Envelope, Membrane and Nucleoprotein also clustered closely with those of the bat, civet and human SARS coronaviruses. However, the external subdomain of Spike's receptor binding domain (RBD) of SARS-CoV-2 shares only 40% amino acid identity with other SARS-related coronaviruses.
Applications	Western blot standard, antibody ELISA, antigen, etc.
Description	Recombinant spike RBD (K417N, E484K, N501Y) protein of SARS-CoV-2 South Africa variant expressed and purified from HEK293 cells. The binding activity has been tested using human ACE2 protein in a functional ELISA assay.
Viral Protein	Spike RBD domain protein of human SARS-CoV-2 South Africa variant (GISAID No. EPI_ISL_736980) with a C-terminal His-tag
Storage	Store at -20 °C; Stable for 3 months from the date of shipment when kept at 4 °C. Non-hazardous, no MSDS required.
Size	**50** µg in PBS
Endotoxin Level	<0.01 EU per 1 µg of the protein by LAL test
Purity	≥ 95% (by SDS PAGE)
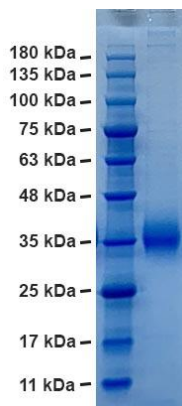
SDS-PAGE: purified recombinant spike RBD (K417N, E484K, N501Y) protein of SARS-CoV-2 South Africa variant

Spike RBD (K417N, E484K, N501Y) Protein (SARS-CoV-2) South Africa Variant SEQ:

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RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVRQIAPGQTGN
IADYNYKLPDDFTGCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVKGFNCYFPLQSYGFQPTYGVGYQPYRVVVLSFE
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