

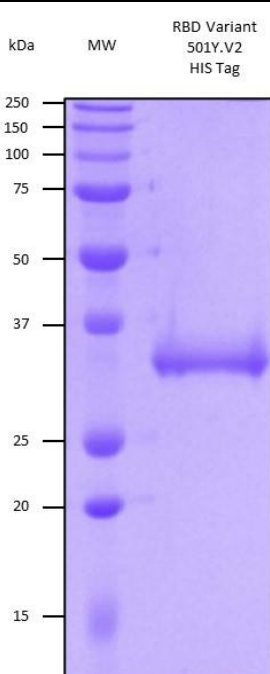
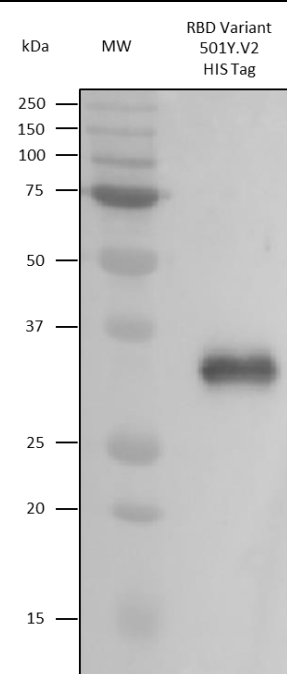
DESCRIPTION

<i>Description</i>	Recombinant Human Coronavirus SARS-CoV-2 Spike Protein S1 subunit, Receptor-Binding Domain (RBD), variant 501Y.V2, Lineage B.1.351 (20C/501Y.V2, South Africa)
<i>Sequence</i>	Native NCBI Accession Number: MN908947 Arg319-Phe541, with mutation K417N; E484K; N501Y
<i>Expression system</i>	HEK293 cells
<i>Tag</i>	HIS Tag C-Terminus
<i>Purification</i>	Affinity chromatography
<i>Extinction coefficient</i>	35340 M ⁻¹ .cm ⁻¹ Abs 0.1% (=1 g/l) 1.35 assuming all pairs of Cys residues form cystines
<i>Predicted Molecular Weight</i>	26.1 kDa

SPECIFICATIONS

<i>SDS Page</i>	Approx. 32 kDa
<i>Size</i>	100 µg
<i>Purity</i>	>95% by SDS PAGE gel
<i>Formulation</i>	Lyophilized from PBS (Na ₂ HPO ₄ /NaH ₂ PO ₄ 50mM pH 7,2, NaCl 150mM, Trehalose)
<i>Reconstitution</i>	Centrifuge the vial prior opening It is recommended to reconstitute in sterile water at 100 µg/ml
<i>Activity</i>	Recognized by CR3022 anti RBD recombinant antibody and Covid-19 positive patients serum samples.
<i>Stability and Storage</i>	Store at minimum -20°C. Avoid repeated freeze-thaw cycles Stable 1 month -20°C to -80°C after reconstitution under sterile conditions

DATA

SDS-PAGE 15% under reducing conditions and visualized by Coomassie blue staining showing a band at approx. 32 kDa	Western Blot: RBD Variant 501Y.V2 HIS Tag detected with anti-HIS-Tag antibody HRP conjugate showing a band at approx. 32 kDa
 <p>kDa MW RBD Variant 501Y.V2 HIS Tag</p>	 <p>kDa MW RBD Variant 501Y.V2 HIS Tag</p>

SARS-CoV-2 Spike Glycoprotein (S1) RBD variant 501Y.V2 Lineage B.1.351

Spike protein (S protein) is one of four structural proteins of Coronavirus (SARS-Cov, SARS-Cov-2, MERS amongst other), S protein plays the most important role in viral attachment, fusion and entry, and it serves as a target for development of antibodies, entry inhibitors and vaccines.

In the S protein, the Receptor Binding Domain (RBD) mediates viral entry of SARS-Cov and SARS-Cov-2 into host cells by its interaction with the membrane receptor ACE2 (Angiotensin-converting enzyme 2).

Recently, the variant 20C/501Y.V2 also named 501Y.V2 (Lineage B.1.351) has been first identified in South Africa in the middle of December 2020. It has been reported the 501Y.V2 variant causes more frequently serious illness in such cases than other variants.

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Rec SARS-CoV-2 RBD variant 501Y.V2 (Lineage B.1.351) 715-H21-0BU

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