

COVID 19 Spike RBD Coronavirus Active Protein | COVID-19 active protein

Recombinant SARS-CoV Spike RBD protein

CATALOG # AAA48374	HOST HEK293	APPLICATIONS SDS-Page
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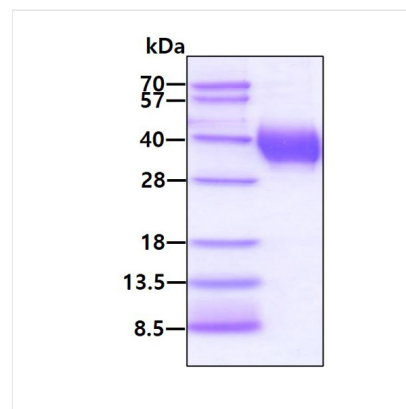
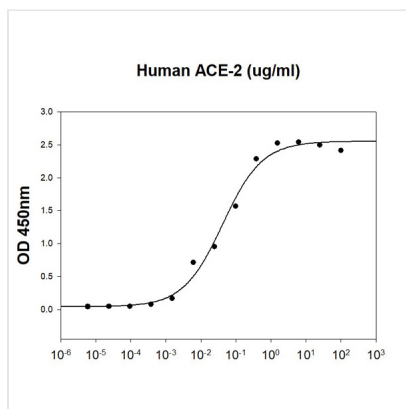
PRODUCT SYNONYMS

COVID 19 Spike RBD Coronavirus; Recombinant SARS-CoV Spike RBD protein; 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; E2 glycoprotein precursor; Spike glycoprotein; S glycoprotein; E2; Peplomer protein; Severe acute respiratory Syndrome-related Coronavirus; SARS; SRAS-CoV; SARS-CoV1; COVID-19 active protein

PRODUCT SPECIFICATIONS

Host	HEK293
Purity/Purification	>95% by SDS-PAGE
Form/Format	Liquid. In Phosphate-Buffered Saline (pH7.4) containing 10% glycerol
Concentration	0.5 mg/ml (determined by Absorbance at 280nm) (varies by lot)
Sequence Positions	306-515aa
Sequence	RVVP SGDVVRFPNI TNLCPFGEVF NATKFPSVYA WERKKISNCV ADYSVLYNST FFSTFKCYGV SATKLNDLCF SNVYADSFVV KGDDVRQIAP GQTGVIADYN YKLPDDFMGC VLAWNTRNID ATSTGNYNKY YRYLRHGKLR PFERDISNVP FSPDGKPCPT PALNCYWPLN DYGFYTTTGI GYQPYRVVVL SFELLNAPAT VCGPKL
Applicable Applications for COVID-19 active protein	Bioactivity, SDS-PAGE
Endotoxin	<1 EU per 1ug of protein (determined by LAL method)
Species	SARS-CoV Spike RBD
Tag	His-Tag
Predicted N-term	Asp
Bioactivity	Measured by its binding ability in a functional ELISA with Human ACE-2
Preparation and Storage	Can be stored at +2C to +8 degree C for 1 week. For long term storage, aliquot and store at -20C to -80 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



Bioactivity

SARS-CoV Spike RBD is coated at 5ug/ml (100 ul/well) can bind ACE-2 (CAT# ATGP3963) in a Functional ELISA assay.

SDS-PAGE

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

ADDITIONAL INFORMATION

Related Product Information for COVID-19 active protein

Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV), Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV), and the recently identified novel Coronavirus (SARS-CoV-2) belong to the Coronaviridae family, genus Betacoronavirus, that has been related to important epidemiological outbreaks. SARS-CoV emerged in 2003 as a significant threat to human health. SARS-CoV has four structural proteins, known as the S (spike), E (envelope), M (membrane), and N (nucleocapsid) proteins. The spike protein, responsible for allowing the virus to attach to and fuse with the membrane of a host cell and is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. It attaches the virion to the cell membrane by interacting with host receptor, initiating the infection. A metalloproteinase, angiotensin-converting enzyme 2 (ACE-2), has been identified as a functional receptor for SARS-CoV through interaction with a receptor binding domain (RBD) located at the C-terminus of S1 subunit. Recombinant SARS-CoV spike RBD protein fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Product Categories/Family for COVID-19 active protein

Virus; Proteins

References

Kukla M., et al, (2020) J Clin Med. 9:1420. Ayoub A., et al, (2020) J Clin Virol. 129:104521. Tortorici, M.A. and D. Veasler (2019). Adv. Virus Res. 105:93-116. Li F, et al, (2005) Science. 309:1864-1868. Struck AW, et al, (2012) Antiviral Res. 94:288-296.

NCBI AND UNIPROT INFORMATION

UniProt Accession #	P59594
Molecular Weight	24.8kDa (220aa)
UniProt Protein Name	Spike glycoprotein
UniProt Gene Name	S
UniProt Synonym Gene Names	S glycoprotein
UniProt Entry Name	SPIKE_CVHSA

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/hek293-covid-19-active-protein/covid-19-spike-rbd-coronavirus/48374>