SARS-CoV-2 XBB.1.16 Recombinant Protein | SARS-COV-2 recombinant protein

SARS-CoV-2 XBB.1.16 (Omicron) Spike RBD Protein (aa319-529, His & AVI Tag), Biotinylated (HPLC-verified)

CATALOG #	HOST	REACTIVITY
AAA259376	**HEK293 Cells**	**SARS-CoV-2**

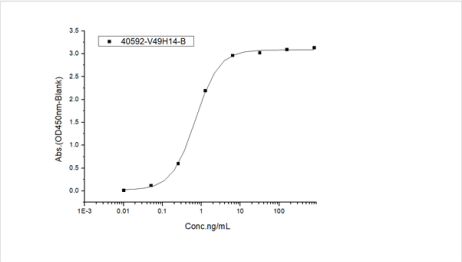
PRODUCT SYNONYMS

SARS-CoV-2 XBB.1.16; SARS-CoV-2 XBB.1.16 (Omicron) Spike RBD Protein (aa319-529; His & AVI Tag); Biotinylated (HPLC-verified); SARS-COV-2 recombinant protein

PRODUCT SPECIFICATIONS

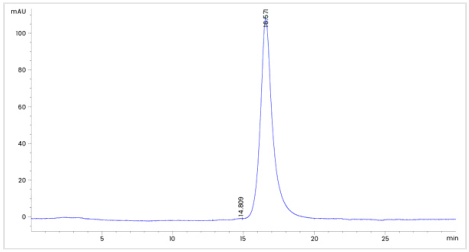
Host	HEK293 Cells
Reactivity	SARS-CoV-2
Purity/Purification	>= 95% as determined by SDS-PAGE. >= 95% as determined by SEC-HPLC.
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Sequence	Arg319-lys 529
Tag	C-His-AVI
Predicted N Terminal	Arg 319
Endotoxin	< 1.0 EU perug protein as determined by the LAL method.
Protein Construction	A DNA sequence encoding the SARS-CoV-2 Spike RBD (YP_009724390.1, with mutation G339H, R346T, L368I, V445P, G446S, N460K, S477N, T478R, E484A, F486P, F490S, Q498R, N501Y, Y505H)(Arg319-lys529) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. The mutations were identified in the SARS-CoV-2 variant (known as variant XBB.1.16).
Activity	Immobilized Recombinant Human ACE2/Angiotensin-Converting Enzyme 2 Protein (Fc Tag) at 2ug/mL (100uL/well) can bind Recombinant SARS-CoV-2 XBB.1.16 Spike RBD Protein (aa319-529,His & AVI Tag),Biotinylated , the EC50 is 0.5-1.5ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

IMAGES

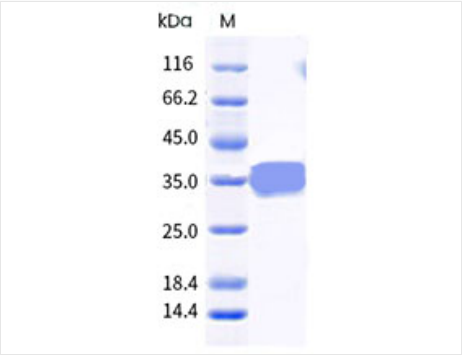


Application Data

Immobilized Recombinant Human ACE2/Angiotensin-Converting Enzyme 2 Protein (Fc Tag) at 2ug/mL (100uL/well) can bind Recombinant SARS-CoV-2 XBB.1.16 Spike RBD Protein (aa319-529,His Tag),Biotinylated (#AAA259376), the EC50 is 0.5-1.5ng/mL.



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for SARS-COV-2 recombinant protein	The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. 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. It's been reported that SARS-CoV-2 (COVID-19 coronavirus, 2019-nCoV) can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein 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. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.
References	She. S. e. al. (2007. Expression. glycosylation. an. modificatio. o. th. spik. (S. glycoprotei. o. SAR. CoV. Method. Mo. Biol. 379. 127-35.D. L. e. al. (2009. Th. spik. protei. o. SARS-CoV--. targe. fo. vaccin. an. therapeuti. development. Na. Re. Microbiol. . (3). 226-36.Xia. X. e. al. (2004. Th. SARS-Co. . glycoprotein. Cel. Mo. Lif. Sci. 6. (19-20). 2428-30.

NCBI AND UNIPROT INFORMATION

Molecular Weight	51.5 kDa

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.

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Online datasheet: https://www.aaabiotech.com/sars-cov-2-xbb-1-16-recombinant-protein-hek293-cells/259376