

MERS-CoV Spike/S1 Protein Active Protein | S1 active protein

Recombinant MERS-CoV Spike/S1 Protein (S1 Subunit, aa 1-725, His Tag)

CATALOG #
AAA177991

HOST
HEK293 Cells

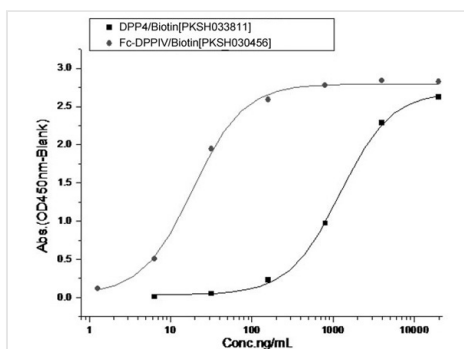
PRODUCT SYNONYMS

MERS-CoV Spike/S1 Protein; Recombinant MERS-CoV Spike/S1 Protein (S1 Subunit, aa 1-725; His Tag); coronavirus s1 Protein; MERS-CoV; coronavirus s2 Protein; coronavirus spike Protein; cov spike Protein; ncov RBD Protein; ncov s1 Protein; ncov s2 Protein; ncov spike Protein; RBD Protein; S Protein; s1 Protein; Spike RBD Protein; S1 active protein

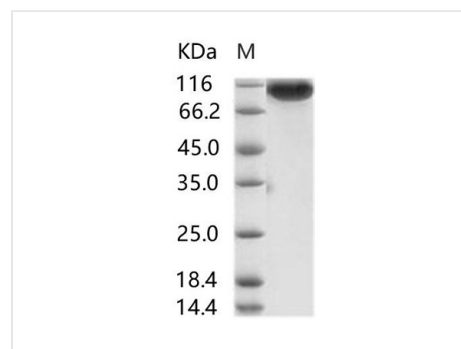
PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Sequence	Met1-Glu725
Species	MERS-CoV
Tag	C-His
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Protein Construction	A DNA sequence encoding the spike protein S1 Subunit MERS-CoV (AFS88936.1)(Met1-Glu725) was fused with a polyhistidine tag at the C-terminus.
Activity	1. Measured by its binding ability in a functional ELISA. Immobilized Spike Protein S1 (aa 1-725)(Cat: PKSV030241) at 10 ug/ml (100ul/well) can bind biotinylated human DPP4 (Cat: PKSH033811). The EC50 of biotinylated DPP4 (Cat: PKSH033811) is 0.6-1.39 ug/ml. 2. Measured by its binding ability in a functional ELISA. Immobilized Spike Protein S1 (aa 1-725)(Cat: PKSV030241) at 10 ug/ml (100ul/well) can bind biotinylated Fc-DPP4 (Cat: PKSH030456). The EC50 of biotinylated Fc-DPP4 (Cat: PKSH030456) is 0.02-0.05 ug/ml.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months. This product is provided as lyophilized powder which is shipped with ice packs.

IMAGES



Bioactivity



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for S1 active 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.
Product Categories/Family for S1 active protein	Virus related Protein

NCBI AND UNIPROT INFORMATION

Molecular Weight	Mol. Mass: 79.9kDa AP Mol. Mass: 94kDa
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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://stage.aaabiotech.com/hek293-cells-active-protein/mers-cov-spike-s1-protein/177991>