

Active Recombinant MERS-CoV Spike RBD Protein (358-606aa), C-His-tagged

Cat. No. S-12M Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant MERS-CoV Spike RBD (358-606aa), fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Species MERS-CoV

Source Insect Cells

ProteinLength 358-606 aa

Description MERS-CoV, which causes the Middle East Respiratory Syndrome (MERS), belongs to a family of viruses known as coronaviruses. MERS-CoV was first identified in the Kingdom of Saudi Arabia in 2012, which is a single and positive stranded RNA virus. Dromedary camels are widely considered as the source of the transmission of MERS-CoV. The rate of human transmission among household contacts of MERS patients has been approximately 5 % based on serological analysis. MERS-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. MERS-CoV S mediates viral attachment and fusion to human cells via human cellular receptor DPP4, also

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	known as CD26. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.
Form	Liquid
Bio-activity	Measured by its binding ability in a functional ELISA with Human DPPIV/CD26.
Molecular Mass	28.2 kDa(258 aa)
AA Sequence	SGVYSVSSFEAKPSGSVVEQAEGVECDFSPLLSGTTPPVYVNFKRLVFTNCNYNLTK LLSLFVNDFTCSQISPAAIASNCYSSLILDYFSYPLSMKSDLSVSSAGPISQFNKQS FSNPTCLILATVPHNLTTITKPLKYSYINKCSRLLSDDRTEVPQLVNANQYSPCVSIVP STVWEDGDYYRKQLSPLEGGGWLVASGSTVAMTEQLQMFGGITVQYGTDTNSVCP KLEFANDTKIASQLGNCVEY
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Bioactivity
Notes	For research use only. This product is not intended or approved for human, diagnostics or veterinary use.
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5 mg/mL (determined by Absorbance at 280 nm)
Storage Buffer	Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

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GENE INFORMATION

Gene Name S spike protein [Middle East respiratory syndrome-related coronavirus]

Official Symbol S

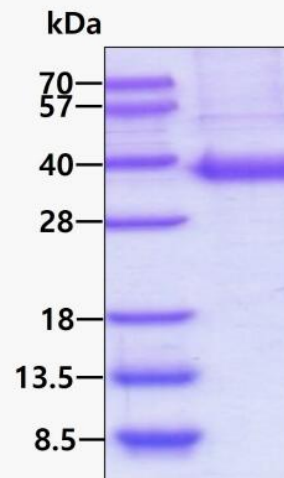
Synonyms S; spike protein; surface glycoprotein

Gene ID 14254594

Protein Refseq YP_009047204

UniProt ID K0BRG7

SDS-PAGE



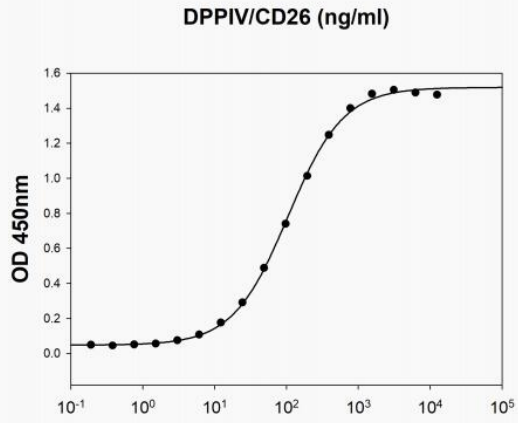
3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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Biological Activity



MERS-CoV Spike RBD is coated at 2 µg/mL (100 µL/well) can bind human DPPiV/CD26 in a functional ELISA assay.

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