

Active Recombinant MERS-CoV Spike Protein (18-1296aa), C-His-tagged

Cat. No. S-13M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant MERS-CoV Spike (18-1296aa), 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	18-1296 aa
Description	<p>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</p>

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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

141.6 kDa(1285 aa)

AA Sequence

YVDVGPDSVKSACIEVDIQQTFFDKTWPRPIDVSKADGIIPQGRITYSNITITYQGLFP
 YQGDHGDMMYVYSAGHATGTPQKLFVANYSQDVKQFANGFVVRIGAAANSTGTVII
 SPSTSATIRKIYPFMLGSSVGNFSDGKMGRFFNHTLVLLPDGCGTLLRAFYCILEPR
 SGNHCPAGNSYTSFATYHTPATDCSDGNYNRNASLNSFKEYFNLRNCTFMYTYNIT
 EDEILEWFGITQTAQGVHLFSSRYVDLYGGNMFQFATLPVYDTIKYYSIIPHSIRSIQS
 DRKAWAAFVYKQLPLTFLDFSVGDYIRRAIDCGFNDLSQLHCSYESFDVESGVYS
 VSSF EAKPSGSVVEQAEGVECDFSPLLSGTTPPVYNFKRLVFTNCNYNLTKLLSLFS
 VNDFTCSQISPAAIASNCYSSLILDYFSYPLSMKSDLSVSSAGPISQFNYKQSFSNPT
 CLILATVPHNLTTITKPLKYSYINKCSRLLSDDRTEVPQLVNANQYSPCVSIVPSTVWE
 DGDYYRKQLSPLEGGGWLVASGSTVAMTEQLQMFGGITVQYGTDTNSVCPKLEFA
 NDTKIASQLGNCVEYSLYGVSGRGVFNCTAVGVRQQRVYDAYQNLVGYYSDDG
 NYYCLRACVSVPVSVIYDKETKTHATLFGSVACEHISSTMSQYSRSTRSMLKRRDST
 YGPLQTPVGCVLGLVNSSLFVEDCKLPLGQSLCALPDTPTLTPRSVRSVPGEMRL
 ASIAFNHPIQVDQLNSSYFKLSIPTNFSFGVTQEYIQTTIQKVTVDCKQYVCNGFQKC
 EQLLREYQGFC SKINQALHGANLRQDDSVRNLFASVKSSQSSPIIPGFGGDFNLTL
 EPVSISTGSR SARSAIEDLLFDKVTIADPGYMQGYDDCMQQGPASARDLICAQYVAG
 YKVLPLMDVNMEAAYTSSLLGSIAGVGWTAGLSSFAAIPFAQSIFYRLNGVGITQQV
 LSENQKLIANKFNQALGAMQTGFTTTNEAFQKVQDAVNNNAQALSKLASELSNTFG
 AISASIGDIIQRLDVLEQDAQIDRLINGRLTTLNAFVAQQLVRSESAALSAQLAKDKVN
 ECVKAQSKRSGFCGQGHIVSFVFNAPNGLYFMHVGYYPSNHIEVVSAYGLCDAAN
 PTNCIAPVNGYFIKTNTRIVDEWSYTGSSFYAPEPITSLNTKYVAPQVQTYQNISTNLP

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PPLLGNSTGIDFQDELDEFFKNVSTSIPNFGSLTQINTTLLDLTYEMLSLQQVVKALNE
SYIDLKELGNYTTYNKWP

Endotoxin < 1 EU/μg of protein (determined by LAL method)

Purity > 85% 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 0.25 mg/mL (determined by Bradford assay)

Storage Buffer Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

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](#)

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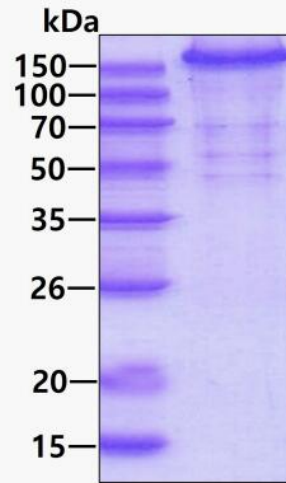
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UniProt ID

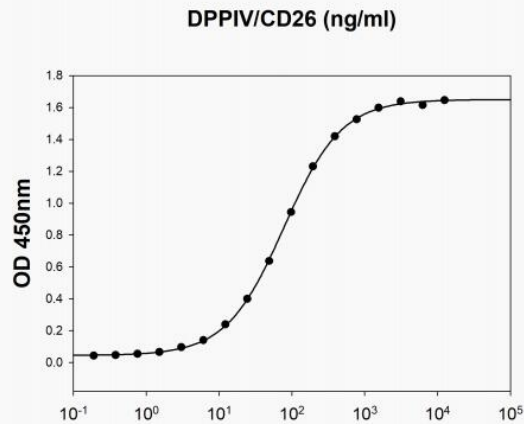
K0BRG7

SDS-PAGE




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


Biological Activity



MERS-CoV Spike is coated at 2 µg/mL (100 µL/well) can bind human DPPIV/CD26


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in a functional ELISA assay.

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