

MERS-CoV Spike Active Protein

Recombinant MERS-CoV Spike protein

CATALOG # AAA48982	HOST Baculovirus	APPLICATIONS SDS-Page
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PRODUCT SYNONYMS

MERS-CoV Spike; Recombinant MERS-CoV Spike protein; Middle East respiratory syndrome coronavirus; Human betacoronavirus 2c EMC/2012; MERS-CoV; MERS; MERS-CoV SP; Spike glycoprotein; S glycoprotein; S Spike protein; MERS-CoV Spike active protein

PRODUCT SPECIFICATIONS

Host	Baculovirus
Purity/Purification	> 85% by SDS-PAGE
Form/Format	Liquid. In Phosphate-Buffered Saline (pH7.4) containing 10% glycerol
Concentration	0.25mg/ml (determined by Bradford assay) (varies by lot)
Sequence Positions	18-1296aa
Sequence	Tyr18 Y VDVGPDSVKS ACIEVDIQT FFDKTWPRPI DVSKADGIY PQGRTYSNIT ITYQGLFPYQ GDHGDMYVYS AGHATGTTTQ KLFVANYSQD VKQFANGFVV RIGAAANSTG TVIISPSTSA TIRKIYPAFM LGSSVGNFSD GKMGRFFNHT LVLLPDGCGT LLRAFYCILE PRSGNHCPAG NSYTSFATYH TPATDCSDGN YNRNASLNSF KEYFNLRNCT FMYTYNITED EILEWFGITQ TAQGVHLFSS RYVDLYGGNM FQFATLPVYD TIKYYSIIPH SIRSIQSDRK AWAAFYVYKL QPLTFLLDFS VDGYIRRAID CGFNDLSQLH CSYESFDVES GVYSVSSFEA KPSGSVVEQA EGVECDFSPL LSGTPPQVYN FKRLVFTNCN YNLTKLLSLF SVNDFTCSQI SPAAIASNCY SSLILDYFSY PLSMKSDLSV SSAGPISQFN YKQSFNSPTC LILATVPHNL TTITKPLKYS YINKCSRLLS DDRTEVPQLV NANQYSPCVS IVPSTVWEDG DYYRKQLSPL EGGGWLVASG STVAMTEQLQ MGFGITVQYG TDTNSVCPKL EFANDTKIAS QLGNCVEYSL YGVSGRGVFQ NCTAVGVRQQ RFVYDAYQNL VGYYSDDGNY YCLRACVSVV VSVIYDKETK THATLFGSVA CEHISSTMSQ YSRSTRSMLK RRDSTYGPLQ TPVGCVLGLV NSSLFVEDCK LPLGQSLCAL PDTPTLTTPR SVRSVPGEMR LASIAFNHPI QVDQLNSSYF KLSIPTNFSE GVTQEYIQT I QKVTVDCQK YVCNGFQKCE QLLREYGQFC SKINQALHGA NLRQDSDVRN LFASVKSSQS SPIIPGFGGD FNLTLLEPVS ISTGSRARS AIEDLLFDKV TIADPGYMQG YDDCMQQGPA SARDLICAQY VAGYKVLPL MDVNMEAYT SLLGSIAGV GWTAGLSSFA AIPFAQSIFY RLNGVGITQQ VLSENQKLI NKFNQALGAM QTGFTTTNEA FQKVQDAVNN NAQALSKLAS ELSNTFGAIS ASIGDIIQRL DVLEQDAQID RLINGRLTTL NAFVAQQLVR SESAALSAQL AKDKVNECVK AQSKRSGFCG QGTHIVSFVV NAPNGLYFMH VGYYPNSHIE VVSAYGLCDA ANPTNCIAPV NGYFIKTNT RIVDEWSYTG SSFYAPEPIT SLNTKYVAPQ VTYQNISTNL PPLLGNSTG IDQDELDEF FKNVSTSIPN FGSLTQINTT LLDLTYEMLS LQQVVKALNE SYIDLKELGN YTYYNKWP
Applicable Applications for MERS-CoV Spike active protein	Bioactivity, SDS-PAGE
Species	MERS-CoV
Endotoxin	< 1 EU per 1ug of protein (determined by LAL method)
Tag	His-Tag
Preparation and Storage	Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

ADDITIONAL INFORMATION

Related Product Information for MERS-CoV Spike active protein	MERS-CoV, which causes the Middles 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 known as CD26. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. Recombinant MERS-CoV Spike, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Product Categories/Family for MERS-CoV Spike active protein	Virus; Proteins
References	Junghyun Goo., et al. (2020) Virus Res. 278:197863. Yan-Hua Li., et al. (2019) Engineering. 5:940-947. Lingshu Wang., et al. (2018) J Virol. 92:e02002-2017. Nicolas Papageorgiou., et al. (2016) Acta Crystallogr D Struct Biol. 72:192-202. Xiao-Yan Che., et al. (2004) J Clin Microbiol. 42:2629-2635. Goo J, et al. Characterization of novel monoclonal antibodies against MERS-coronavirus spike protein. (Virus Res. 2020){ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7114870/ }

NCBI AND UNIPROT INFORMATION

UniProt Accession #	K0BRG7
Molecular Weight	141.6kDa (1285aa)

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/baculovirus-active-protein/mers-cov-spike/48982>