MERS-CoV Spike antibody

Catalog Number: ATGA0596

PRODUCT INFORMATION

Catalog number
ATGA0596

Clone No.
AT23D3

Product type
Monoclonal antibody

UnitProt No.
K0BRG7

NCBI Accession No.
AFS88936

Alternative Names
Middle East respiratory syndrome coronavirus, Human betacoronavirus 2c EMC/2012, MERS-CoV, MERS, MERS-CoV SP, Spike glycoprotein, S glycoprotein, S, Spike protein

Additional Information
23D3 mAb showed broad neutralizing activity. (Virus Res. 2020 Mar 278:197863)

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
MERS-CoV

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant MERS-CoV Spike (18-1296aa) purified from Baculovirus

Isotype
IgG1 kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA

Usage
The antibody has been tested by ELISA analysis to assure specificity and reactivity. Since application varies,

however, each investigation should be titrated by the reagent to obtain optimal results.

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.

BACKGROUND

Description
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.

General 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.

DATA

Additional Information
Image not found or type unknown

ELISA: MERS Spike Antibody (1ug/ml) specifically recognizes MERS Spike, Spike S1 and RBD recombinant protein, but not interacted MERS Spike S2 recombinant protein in ELISA.{ATGA0596-Addpic.jpg}