

MERS-CoV Spike Antibody, Rabbit PAb, Antigen

Affinity Purified

Catalog Number: 40069-RP02



Sino Biological Inc.
Biological Solution Specialist

General Information

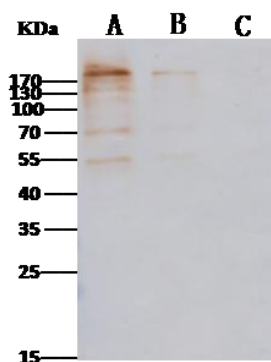
Immunogen:	Recombinant MERS-CoV (NCoV / Novel coronavirus) Spike Protein (ECD, aa 1-1297) (Catalog#40069-V08B)
Ig Type:	Rabbit IgG
Applications:	WB, ELISA, IHC-P, ICC/IF, IF, FCM, IP (Antibody's applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user.)
Specificity:	The antibody reacts with MERS-CoV (NCoV / Novel coronavirus) full-length Spike protein (S protein).
Formulation:	0.2 µm filtered solution in PBS
Storage:	< -20°C

Preparation

Produced in rabbits immunized with purified, recombinant MERS-CoV (NCoV / Novel coronavirus) Spike Protein (Catalog#40069-V08B; AFS88936.1; Met1-Trp1297). Spike Protein specific IgG was purified by MERS-CoV (NCoV / Novel coronavirus) Spike Protein affinity chromatography.

Applications

WB: 0.5-1 µg/mL



Lanes		A	B	C
Items				
Sample (Protein)		HCoV-EMC/2012 Spike protein (ECD, aa 1-1297)		
Sample Volume (ng/lane)		5	1	0.2
Gel		13% SDS-PAGE reducing gel		
Recommended Concentration		0.5-1 µg/ml		
Secondary Antibody		Goat anti Rabbit IgG (H+L)/HRP, 0.4 µg/ml.		

ELISA – This antibody can be used at 0.1-0.2 µg/mL with the appropriate secondary reagents to detect MERS-CoV (NCoV / Novel coronavirus) Spike Protein (ECD, aa 1-1297) (Catalog#40069-V08B) in ELISA.

Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.**

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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Background

The spike protein is one of the four major structural proteins of the coronavirus. Coronavirus symptoms include rhinorrhea, sneezing, cough, nasal obstruction, bronchitis and so on. In 2003, a novel coronavirus which is known as SARS coronavirus cause the severe acute respiratory syndrome (SARS) epidemic that began in Asia in 2002. Coronavirus entry is mediated by the viral spike protein. The 180-kDa oligomeric spike protein of the murine coronavirus mouse hepatitis virus strain A59 is posttranslationally cleaved into an S1 receptor binding unit and an S2 membrane fusion unit. Both biochemical and functional data show that the coronavirus spike protein is a class I viral fusion protein.

HCoV-EMC is a novel coronavirus isolated from a Saudi patient presenting with pneumonia and renal failure in June 2012. Genome sequencing showed that this virus belongs to the group C species of the genus betacoronavirus and phylogenetically related to the bat coronaviruses HKU4 and HKU5 previously found in lesser bamboo bat and Japanese Pipistrelle bat of Hong Kong respectively. HCoV-EMC has been identified as a highly lethal virus that could be passed from animals to humans very easily. The virus, like other coronaviridae, has the potential to infect bats and pigs in addition to humans. HCoV-EMC is related to the causative agent of SARS (severe acute respiratory syndrome), SARS coronavirus, and also may be even more infectious as it does not use the human receptor protein ACE2. The receptor used by HCoV-EMC has not been identified. Symptoms of infection include kidney failure and severe pneumonia. The animal source has still not been identified but may circulate among populations of bats.

Reference

1. Sander van Boheemen. et al., 2012, mBio. 3 (6): e00473-12.
2. Muller M A. et al., 2012, mBio 3 (6): e00515-12.
3. Chan JF. et al., 2012, J Infect. 65 (6): 477-89.