Anti-SARS-CoV-1 spike glycoprotein antibody, mouse monoclonal (3A2)

Product code	65-101
Size	50 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Formaldehyde inactivated SARS CoV-1
Isotype	Mouse IgG2bκ
Reactivity	Reacts with spike protein of SARS-CoV1 the respiratory illness responsible for the 2002–2004 SARS outbreak. Does not react with SARS-CoV2 and MERS virus.
Special notes	N/A
Application	1. Western Blotting (0.1~0.3 µg/ml) 2. Immuno-Fluorescence staining (~1 µg/ml) 3. Flow Cytometry (assay dependent) 4. Neutralization (assay dependent)
Background	A novel type of coronavirus has been identified as the causative agent of SARS (Severe Acute Respiratory Syndrome). Spike glycoprotein is essential for the infection and directly binds to the virus receptor, ACE2 (Angiotensin-Converting Enzyme 2). The spike protein consisting of 1181 amino acids, which migrates at 200 kDa position on SDS-PAGE (Fig. 2), the larger size due to its glyco-chains.
Data Link	UniProKB: P59594

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 65-101 Anti-SARS spike glycoprotein antibody, mouse monoclonal (3A2)

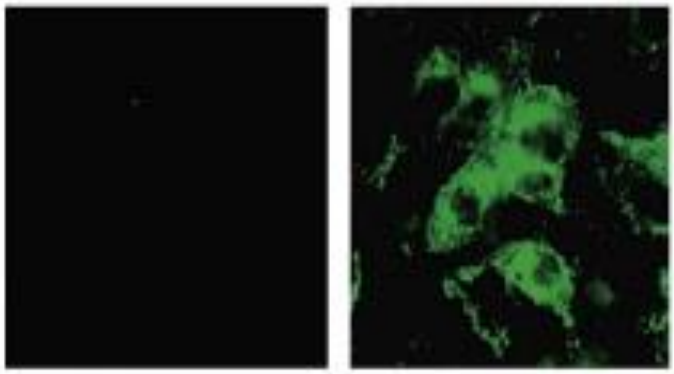

Fig 1. Identification of the spike antigen in the SARS virus infected cells by indirect immunostaining with 3A2 antibody.

The antibody was used at 1/1,000 dilution. (a) Uninfected Vero E6 cells. (b) SARS virus infected Vero E6 cells.

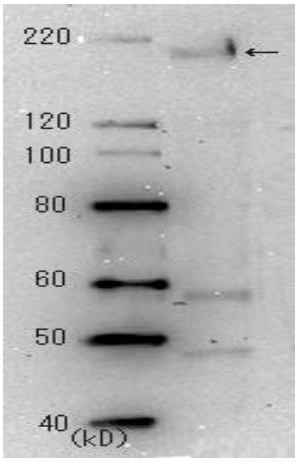

Fig 2. Identification of the spike glycoprotein in the SARS virus infected cells by Western blotting.

The 3A2 antibody was used at 1/10,000 dilution.

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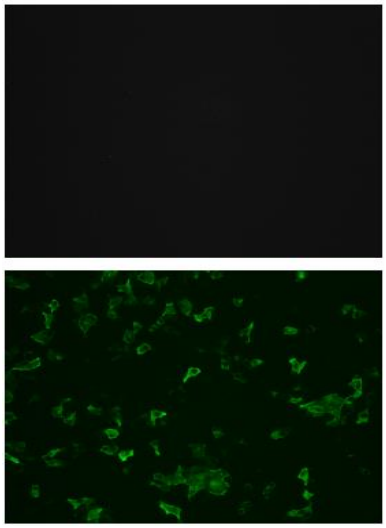

Fig 3. Anti-SARS-CoV spike protein antibody (3A2) does not cross-react with SARS-CoV2.

(a) Upper image: Anti-SARS spike antibody (3A2) was used at 1 μg/ ml.

(b) Lower image: Anti-SARS-CoV2 N protein monoclonal antibody was used as a positive control.

Vero cells infected with SARS-CoV2 were treated with the antibodies and as the second antibody, Alexa 488-conjugated goat anti-mouse IgG (H+L) (Invitogen A11029) was at 1/2,000 dilution

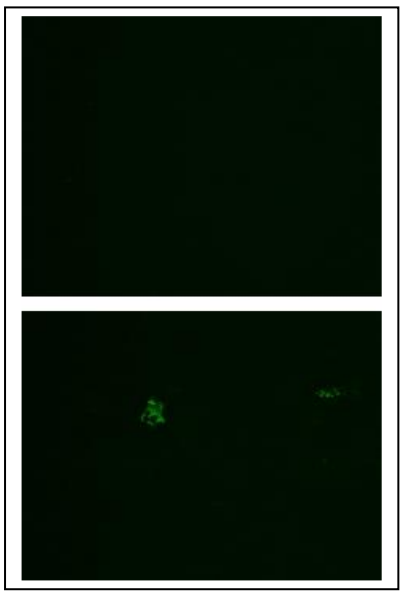

Fig 4. Anti-SARS-CoV spike protein antibody (3A2) does not cross-react with MERS-CoV.

(a) Upper image: Anti-SARS spike antibody (3A2) was used at 1 μg/ ml.

(b) Lower image: Anti-MERS-CoV N protein monoclonal antibody was used as a positive control.

Vero cells infected with MERS-CoV were treated with the antibodies, and as the second antibody, Alexa 488-conjugated goat anti-mouse IgG (H+L) (Invitogen A11029) was used at 1/2,000 dilution

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References: This product has been used in the following Publications.

1. Yamate M et al. Establishment of Vero E6 cell clones persistently infected with severe acute respiratory syndrome coronavirus. Microbes Infect. 2005 Dec;7(15):1530-40.PMID: 16269264 **IF, FC**
2. Yamashita M et al. Susceptibility of human and rat neural cell lines to infection by SARS-coronavirus. Biochem Biophys Res Commun. 2005 Aug 19;334(1):79-85. PMID:15992768. **IF**
3. Li GM et al. Reduced incorporation of SARS-CoV spike protein into viral particles due to amino acid substitutions within the receptor binding domain. Jpn J Infect Dis. 2008 Mar;61(2):123-7. PMID:18362400 **WB, Neutralization**

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