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10-10039: Anti-SARS CoV2 Spike RBD Antibody (Clone: ABM1H9.1E6)

Clonality :	Monoclonal
Clone Name :	ABM1H9.1E6
Application :	ELISA,WB
Format :	Purified
Alternative Name :	Anti-coronavirus s1 Antibody, Anti-coronavirus spike Antibody; Anti-cov spike Antibody; Anti-ncov RBD Antibody; Anti-ncov s1 Antibody; Anti-ncov spike Antibody; Anti-novel coronavirus RBD Antibody; Anti-novel coronavirus s1 Antibody; Anti-novel coronavirus spike Antibody; Anti-RBD Antibody; Anti-S1 Antibody, Anti-Spike RBD Antibody.
Isotype :	Mouse IgG2b, Kappa
Immunogen Information :	A partial length recombinant SARS-CoV2 Spike RBD protein with sequence (319-541aa) was used as the immunogen for this antibody.

Description

The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein 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.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Recommended dilutions: WB: 0.5-1 µg/ml. However, this need to be optimized based on the research applications.

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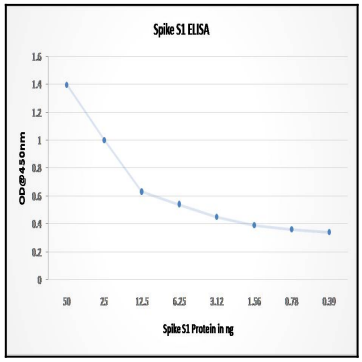

Figure-1: The Sandwich ELISA was carried out by coating the 96 well plate with 200 ng/well of ABM1H9.1E6 (Cat#10-10039) monoclonal antibody. The Mammalian expressed full-length SARS-CoV-2 Spike S1 protein (21-1008) was serially diluted from 50 ng to 0.39 ng in triplicates across rows. The (11-2009) polyclonal antibody (200 ng/well) was used as detection antibody. Goat Anti-rabbit HRP was used as secondary antibody.

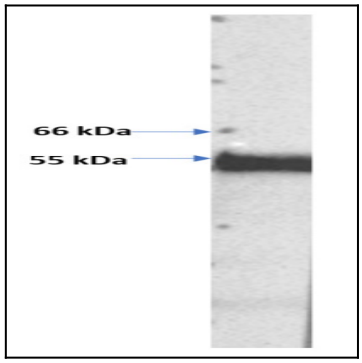

Figure-2: Western Blot analysis of SARS-CoV-2 Spike RBD Antibody: Anti- SARS-CoV-2 Spike RBD Antibody (Clone: ABM1H9.1E6) was used at 0.5 µg/ml on SARS-CoV-2 Spike RBD Recombinant protein.

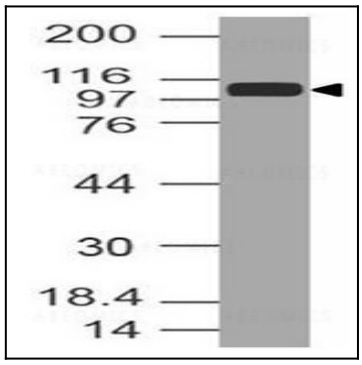

Figure-3: Western Blot analysis of SARS-CoV-2 Spike RBD Antibody: Anti- SARS-CoV-2 Spike RBD Antibody (Clone: ABM1H9.1E6) was used at 0.5 µg/ml on mammalian expressed full length spike S1 (21-1008) protein.

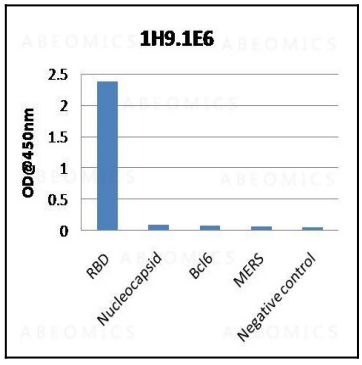

Figure-4: Anti-RBD monoclonal antibody (1H9.1E6) was screened against different proteins to evaluate the specificity of the antibody.