

Anti-Human coronavirus spike glycoprotein Monoclonal Antibody

E-AB-V1252

Application	ELISA	Host	Rabbit
Storage	Store at -20°C. Avoid freeze / thaw cycles.	Clone No.	028

Important Note Centrifuge before opening to ensure complete recovery of vial contents.

Product Details

Immunogen	Recombinant HCoV-HKU1 (Isolate N1) S1 Protein (His Tag)
Isotype	IgG
Host	Rabbit
Clone No.	028
Reactivity	HCoV-HKU1
Dilution	ELISA 1:5000-1:10000
Storage Buffer	0.2 µm filtered solution in PBS
Stability & Storage	Ships on ice packs. Store at -20°C
Description	This antibody was obtained from a rabbit immunized with purified Recombinant HCoV-HKU1 (Isolate N1) S1 Protein (His Tag). And the antibody was purified by Protein A Affinity.

Antigen Information

Alternate Names spike

Background 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 SARS-CoV-2 (COVID-19 coronavirus, 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.

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Applications: Activ- Activation; Block- Blocking; Separation- Cell Separation ; Cell Sep-Neg- Cell Separation by Negative Selection; FA- Functional Assay; Neut- Neutralization; Stim- Stimulation; FCM- Flow Cytometry; ICFM: Intracellular Staining for Flow Cytometry; WB- Western Blotting; IHC- Immunohistochemistry; IF- Immunofluorescence; IP- Immunoprecipitation