SARS-CoV Spike RBD Rabbit mAb

Catalog No.: A22368 Recombinant



Basic Information

Observed MW 181KD

Calculated MW 139kDa

Category Primary antibody

Applications ELISA,WB

Cross-Reactivity SARS-CoV

CloneNo number ARC52570

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, Oacetylated 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.

Recommended Dilutions

1:1000 - 1:5000

WB

Immunogen Information

Gene ID 1489668

Swiss Prot P59594

Immunogen

A synthetic peptide corresponding to a sequence within amino acids 350-450 of coronavirus SARS-CoV Spike RBD (NP_828851.1).

Synonyms

E2; SARS-CoV Spike RBD

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Product Information

Source Rabbit **lsotype** IgG **Purification** Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.



Western blot analysis of 293T, using SARS-CoV Spike RBD antibody (A22368) at 1:2000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 30s.