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SARS Spike Antibody

Catalog # ASC10325

Product Information

Application	E
Primary Accession	P59594
Other Accession	P59594, 30173397
Reactivity	Virus
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	139125
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SARS Spike antibody can be used for the detection of SARS Spike protein in ELISA. It will detect 10 ng of free peptide at 1 □g/mL.

Additional Information

Other Names	SARS Spike Antibody: E2, Spike glycoprotein, E2, S glycoprotein, Spike glycoprotein
Target/Specificity	S;
Reconstitution & Storage	SARS Spike antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SARS Spike Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	S {ECO:0000255|HAMAP-Rule:MF_04099}
Function	[Spike glycoprotein]: May down-regulate host tetherin (BST2) by lysosomal degradation, thereby counteracting its antiviral activity.
Cellular Location	Virion membrane {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Host endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:20861307}; Single- pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Host cell membrane {ECO:0000255|HAMAP- Rule:MF_04099, ECO:0000269|PubMed:15831954};

Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Note=Accumulates in the endoplasmic reticulum-Golgi intermediate compartment, where it participates in virus particle assembly. Colocalizes with S in the host endoplasmic reticulum-Golgi intermediate compartment (PubMed:20861307). Some S oligomers are transported to the host plasma membrane, where they may mediate cell-cell fusion. {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:20861307}

Background

SARS Spike Antibody: A novel coronavirus has recently been identified as the causative agent of SARS (Severe Acute Respiratory Syndrome). Coronaviruses are a major cause of upper respiratory diseases in humans. The genomes of these viruses are positive-stranded RNA approximately 27-31kb in length. SARS infection can be mediated by the binding of the viral spike protein, a glycosylated 139 kDa protein and the major surface antigen of the virus, to the angiotensin-converting enzyme 2 (ACE2) on target cells. This binding can be blocked by a soluble form of ACE2.

References

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Rota PA, Oberste MS, Monroe SS, et al. Characterization of a novel coronavirus associated with severe acute respiratory syndrome. Science 2003;300:1394-9.
Navas-Nartin SR and Weiss S. Coronavirus replication and pathogenesis: Implications for the recent outbreak of severe acute respiratory syndrome (SARS), and the challenge for vaccine development. J Neurovirol. 2004;10:75-85.
Li W, Moore MJ, Vasileva N, et al. Angiotensin-converting enzyme 2 is a functional receptor for the SARS coronavirus. Nature 2003;426:450-4.