

# SARS Spike Antibody

Catalog # ASC10219

## Product Information

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<b>Application</b>	E
<b>Primary Accession</b>	<a href="#">P59594</a>
<b>Other Accession</b>	<a href="#">P59594</a> , <a href="#">30173397</a>
<b>Reactivity</b>	Virus
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	139125
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	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 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	1489668
<b>Other Names</b>	SARS Spike Antibody: E2, Spike glycoprotein, E2, S glycoprotein, Spike glycoprotein
<b>Target/Specificity</b>	S;
<b>Reconstitution &amp; Storage</b>	SARS Spike antibody can be stored at 4°C for three months and -20°C, 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.
<b>Precautions</b>	SARS Spike Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	S {ECO:0000255   HAMAP-Rule:MF_04099}
<b>Function</b>	[Spike glycoprotein]: May down-regulate host tetherin (BST2) by lysosomal degradation, thereby counteracting its antiviral activity.
<b>Cellular Location</b>	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

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**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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- Marra MA, Jones SJ, Astell CR, et al. The Genome sequence of the SARS-associated corona virus. *Science* 2003;300:1399-404.
- 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.