

**SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant)**  
**Infectious Disease, COVID-19**  
**Catalog # ASC12230**

**Specification**

**SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant) - Product Information**

Application	E, WB
Primary Accession	<a href="#">P0DTC2</a>
Other Accession	<a href="#">QHD43416</a>
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a, Kappa
Application Notes	WB: 1 µg/mL. Antibody validated: Western Blot in human samples. Anti-SARS-CoV-2 (COVID-19) P681H Mutant Specific Spike antibody can specifically detect SARS-CoV-2 Alpha Variant (B.1.1.7, UK) S1 protein, but not SARS-CoV-2 WT Spike S1 protein by ELISA and WB. It can also detect mutant peptide (681H), but not WT peptide (681P). All other applications and species not yet tested.

**SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant) - Additional Information**

Gene ID	43740568
<b>Other Names</b>	SARS-CoV-2 (COVID-19) P681H Mutant Specific Spike antibody: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Surface Glycoprotein, Spike protein

**Target/Specificity**

May cross-react with several virus of interest (VOI) variant lineages that contains P681H mutation, including B.11.318, B.1.621, B.1.621.1, P.3. But all of these lineages are rarely present in current pandemic.

**Reconstitution & Storage**

SARS-CoV-2 (COVID-19) P681H Mutant Specific 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.

**Precautions**

SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant) is for research use only and not for use in diagnostic or therapeutic procedures.

**SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant) - Protein Information**

**Name** S {ECO:0000255|HAMAP-Rule:MF\_04099}

## Function

[Spike protein S1]: Attaches the virion to the cell membrane by interacting with host receptor, initiating the infection. The major receptor is host ACE2 (PubMed:<a href="http://www.uniprot.org/citations/32142651" target="\_blank">32142651</a>, PubMed:<a href="http://www.uniprot.org/citations/32155444" target="\_blank">32155444</a>, PubMed:<a href="http://www.uniprot.org/citations/33607086" target="\_blank">33607086</a>). When S2/S2' has been cleaved, binding to the receptor triggers direct fusion at the cell membrane (PubMed:<a href="http://www.uniprot.org/citations/34561887" target="\_blank">34561887</a>). When S2/S2' has not been cleaved, binding to the receptor results in internalization of the virus by endocytosis leading to fusion of the virion membrane with the host endosomal membrane (PubMed:<a href="http://www.uniprot.org/citations/32075877" target="\_blank">32075877</a>, PubMed:<a href="http://www.uniprot.org/citations/32221306" target="\_blank">32221306</a>). Alternatively, may use NRP1/NRP2 (PubMed:<a href="http://www.uniprot.org/citations/33082294" target="\_blank">33082294</a>, PubMed:<a href="http://www.uniprot.org/citations/33082293" target="\_blank">33082293</a>) and integrin as entry receptors (PubMed:<a href="http://www.uniprot.org/citations/35150743" target="\_blank">35150743</a>). The use of NRP1/NRP2 receptors may explain the tropism of the virus in human olfactory epithelial cells, which express these molecules at high levels but ACE2 at low levels (PubMed:<a href="http://www.uniprot.org/citations/33082293" target="\_blank">33082293</a>). The stalk domain of S contains three hinges, giving the head unexpected orientational freedom (PubMed:<a href="http://www.uniprot.org/citations/32817270" target="\_blank">32817270</a>).

## Cellular Location

Virion membrane {ECO:0000255|HAMAP-Rule:MF\_04099, ECO:0000269|PubMed:32979942}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF\_04099, ECO:0000269|PubMed:34504087}. Host endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000255|HAMAP-Rule:MF\_04099, ECO:0000269|PubMed:34504087}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF\_04099}. Host cell membrane {ECO:0000255|HAMAP-Rule:MF\_04099, ECO:0000269|PubMed:34504087}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF\_04099}. Note=Accumulates in the endoplasmic reticulum-Golgi intermediate compartment, where it participates in virus particle assembly. Some S oligomers are transported to the host plasma membrane, where they may mediate cell-cell fusion (PubMed:34504087). An average of 26 +/-15 S trimers are found randomly distributed at the surface of the virion (PubMed:32979942) {ECO:0000255|HAMAP-Rule:MF\_04099, ECO:0000269|PubMed:32979942, ECO:0000269|PubMed:34504087}

## SARS-CoV-2 Spike P681H Antibody [9F7E4] (Alpha, Mu Variant) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)