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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	**WB, E**
Primary Accession	P0DTC2
Other Accession	QHD43416
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**

Other Names
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:32142651, PubMed:32155444, PubMed:33607086). When S2/S2' has been cleaved, binding to the receptor triggers direct fusion at the cell membrane (PubMed:34561887). When S2/S2' has not been cleaved, binding to the receptor results in internalization of the virus by endocytosis using host TFRC and GRM2 and leading to fusion of the virion membrane with the host endosomal membrane (PubMed:32075877, PubMed:32221306, PubMed:34903715, PubMed:36779763). Alternatively, may use NRP1/NRP2 (PubMed:33082294, PubMed:33082293) and integrin as entry receptors (PubMed:35150743). 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:33082293). The stalk domain of S contains three hinges, giving the head unexpected orientational freedom (PubMed:32817270).

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 Cytomety
- Cell Culture