Mouse COVID 19 P681H Mutant Specific Spike Coronavirus Monoclonal Antibody | anti-COVID-19 antibody

SARS-CoV-2 (COVID-19) P681H Mutant Specific Spike Antibody [9F7E4]

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA40924	**Mouse**	**Virus**	**Western Blot, ELISA**

PRODUCT SYNONYMS

COVID 19 P681H Mutant Specific Spike Coronavirus; Monoclonal Antibody; SARS-CoV-2 (COVID-19) P681H Mutant Specific Spike Antibody [9F7E4]; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; P681H Mutant Specific Spike Antibody; anti-COVID-19 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Virus
Clonality	Monoclonal
Isotype	IgG2a, Kappa
Clone Number	9F7E4
Purity/Purification	SARS-CoV-2 (COVID-19) Alpha Variant (B.1.1.7, UK) Spike P681H Antibody is Protein A purified.
Form/Format	Liquid
Concentration	1 mg/mL (varies by lot)
Applicable Applications for anti-COVID-19 antibody	WB (Western Blot), ELISA
Homology	Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (25%)
Immunogen	Anti-SARS-CoV-2 (COVID-19) Alpha Variant (B.1.1.7, UK) Spike P681H antibody was raised against a peptide corresponding to 12 amino acids near the center of SARS-CoV-2 Alpha variant (B.1.1.7) Spike protein. The immunogen is located within 650-700 amino acids of SARS-CoV-2 Alpha Variant (B.1.1.7, UK) Spike protein.
Buffer	Anti- Alpha Variant (B.1.1.7, UK) Spike P681H antibody is supplied in PBS containing 0.02% sodium azide.
Preparation and Storage	SARS-CoV-2 (COVID-19) Alpha Variant (B.1.1.7, UK) Spike P681H 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.

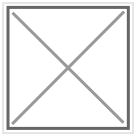
IMAGES

ELISA

Figure 3 ELISA Validation of Alpha Variant Spike Antibodies with Mutant and WT PeptideCoating Antigen: SARS-CoV-2 spike S1 peptides, including WT and alpha variant (B.1.1.7, UK), 1 μg/mL, incubate at 4 ˚C overnight.Detection Antibodies: SARS-CoV-2 Alpha Variant Spike antibody, dilution: 0.1-1000 ng/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-mouse HRP at 1:5,000, incubate at RT for 1 hr.SARS-CoV-2 alpha variant spike antibody can specifically detect alpha variant spike S1 peptide, but not WT peptide.

WB (Western Blot)

Figure 2 WB Validation of Alpha Variant Spike Antibodies with SARS-CoV-2 Alpha Variant Spike S1 ProteinLoading: 50 ng of SARS-CoV-2 spike S1 proteins, including WT and alpha variant (B.1.1.7, UK).Detection Antibodies: SARS-CoV-2 Alpha Variant Spike antibody, 1 μg/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-mouse HRP at 1:5,000, incubate at RT for 1 hr.SARS-CoV-2 alpha variant spike antibody can specifically detect alpha variant spike S1 protein, but not WT spike S1 protein (10-300) by WB.



ELISA

Figure 1 ELISA Validation of Alpha Variant Spike Antibodies with SARS-CoV-2 Alpha Variant Spike S1 ProteinCoating Antigen: SARS-CoV-2 spike S1 proteins, including WT and alpha variant (B.1.1.7, UK), 1 μg/mL, incubate at 4 ˚C overnight.Detection Antibodies: SARS-CoV-2 Alpha Variant Spike antibody, dilution: 0.3-1000 ng/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-mouse HRP at 1:5,000, incubate at RT for 1 hr.SARS-CoV-2 alpha variant spike antibody can specifically detect alpha variant spike S1 protein, but not WT spike S1 protein (10-300) by ELISA.

ADDITIONAL INFORMATION

Related Product Information for anti-COVID-19 antibody	In September of 2020 a new lineage of SARS-CoV-2, known as B.1.1.7 and named as Alpha variant, was discovered in the United Kingdom. This lineage was found to have developed 14 lineage-specific amino acid replacements and 3 deletions prior to its discovery. The transmission of alpha variant (B.1.1.7 lineage) was increased at least 50%. Increased severity and higher death rate were also found in apha variant. Alpha variant will not affect the effectiveness of COVID19 vaccine. One of the mutations associated with this lineage is a **N501Y** in the spike protein of the virus. It is believed that this mutation is able to increase the spike protein's affinity for the host ACE2 receptor and it has been associated with increased infectivity and virulence. B.1.1.7 viruses have also been shown to have a **P681H** mutation in the cleavage site of spike protein. This location is one of the residues that make up the furin cleavage site between S1 and S2 in spike protein.
Product Categories/Family for anti-COVID-19 antibody	Infectious Disease; COVID-19
References	1) Duchene et al. Virus Evolution 6(2): veaa061. 2) Gu et al. Science 369(6511):1603-1607 3) Hoffmann et al. Molecular Cell 78(4):779-784.e5 4) Davies et al. Science 372(6538):eabg3055. 5) Davies et al. Nature. 593(7858):270-274. 6) Graham, et al. The Lancet Public Health. 6(5): e335-e345. 7) Horby et al. New & Emerging Threats Advisory Group. 2020;91:264-266.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1791269090
NCBI GeneID	43740568
UniProt Accession #	QHD43416

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/monoclonal/covid-19-p681h-mutant-specific-spike-coronavirus-antibody-clone-9f7e4-western-blot-elisa/40924