

Rabbit COVID 19 UK Variant (B.1.1.7) Spike P681H Coronavirus Polyclonal Antibody | anti-COVID-19 antibody

SARS-CoV-2 UK Variant (B.1.1.7) Spike P681H Antibody

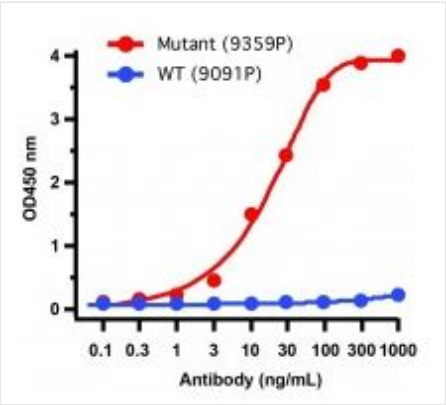
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA40928	Rabbit	VirusPredicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (25%)	Western Blot, ELISA

PRODUCT SYNONYMS

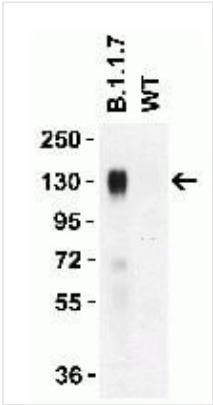
COVID 19 UK Variant (B.1.1.7) Spike P681H Coronavirus; Polyclonal Antibody; SARS-CoV-2 UK Variant (B.1.1.7) Spike P681H Antibody; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; UK Variant (B.1.1.7) Spike P681H; anti-COVID-19 antibody

PRODUCT SPECIFICATIONS

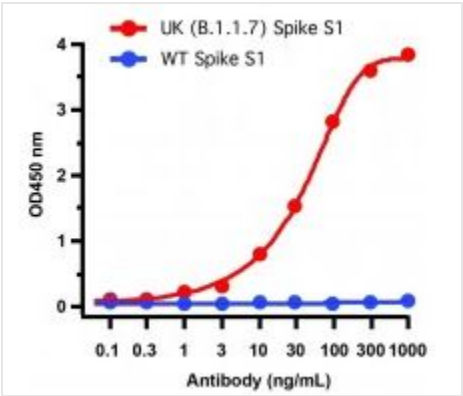
Host	Rabbit
Reactivity	Virus Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (25%)
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	SARS-CoV-2 (COVID-19) Alpha Variant (B.1.1.7, UK) Spike P681H Antibody is Protein A purified.
Form/Format	Liquid. SARS-CoV-2 UK Variant (B.1.1.7) Spike P681H antibody is supplied in PBS containing 0.02% sodium azide.
Concentration	1mg/mL (varies by lot)
Applicable Applications for anti-COVID-19 antibody	WB (Western Blot), ELISA
Organism	SARS-CoV-2
Immunogen	Anti-SARS-CoV-2 UK Variant (B.1.1.7) Spike P681H antibody was raised against a peptide corresponding to 12 amino acids near the center of SARS-CoV-2 UK variant (B.1.1.7) Spike protein. The immunogen is located within 650-700 amino acids of SARS-CoV-2 UK variant (B.1.1.7) Spike protein.
Conjugation	Unconjugated
Protein GI#	1791269090
Preparation and Storage	SARS-CoV-2 UK Variant (B.1.1.7) Spike P681H antibody can be stored at 4 degree C for three months and -20 degree 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.



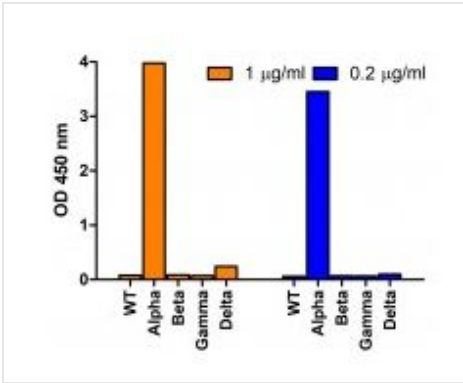
ELISA
Figure 4 ELISA Validation of UK Variant Spike Antibodies with Mutant and WT PeptideCoating Antigen: SARS-CoV-2 spike S1 peptides, including WT and UK variant (B.1.1.7), 1 μg/mL, incubate at 4 ˚C overnight.Detection Antibodies: SARS-CoV-2 UK Variant Spike antibody, 9091, dilution: 0.1-1000 ng/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-rabbit HRP at 1:20,000, incubate at RT for 1 hr. Immunogen region of antibody includes site 681P that was mutated in B.1.1.7. SARS-CoV-2 UK variant spike antibody (9359) can specifically detect UK variant spike S1 peptide, but not WT peptide.



WB (Western Blot)
Figure 3 WB Validation of UK Variant Spike Antibodies with SARS-CoV-2 UK Variant Spike S1 ProteinLoading: 50 ng of SARS-CoV-2 spike S1 proteins, including WT and UK variant (B.1.1.7).Detection Antibodies: SARS-CoV-2 UK Variant Spike antibody, 9359, 1 μg/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-rabbit HRP at 1:20,000, incubate at RT for 1 hr.SARS-CoV-2 UK variant spike antibody can specifically detect UK variant spike S1 protein, but not WT spike S1 protein (10-300).



ELISA
Figure 2 ELISA Validation of UK Variant Spike Antibodies with SARS-CoV-2 UK Variant Spike S1 ProteinCoating Antigen: SARS-CoV-2 spike S1 proteins, including WT and UK variant (B.1.1.7), 1 μg/mL, incubate at 4 ˚C overnight.Detection Antibodies: SARS-CoV-2 UK Variant Spike antibody, 9359, dilution: 0.1-1000 ng/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-rabbit HRP at 1:20,000, incubate at RT for 1 hr.SARS-CoV-2 UK variant spike antibody can specifically detect UK variant spike S1 protein, but not WT spike S1 protein (10-300).



Application Data
Figure 1 ELISA Validation of Alpha Variant Spike Antibodies with Spike S1 Protein of SARS-CoV-2 VariantsCoating Antigen: SARS-CoV-2 spike S1 proteins, including WT, alpha variant (B.1.1.7, UK), beta variant (B.1.351, SA), gamma variant (P.1, Brazil), and delta variant (B.1.617.2, India), 1 μg/mL, incubate at 4 ˚C overnight.Detection Antibodies: SARS-CoV-2 Alpha Variant Spike antibody, 9359, dilution: 200-1000 ng/mL, incubate at RT for 1 hr.Secondary Antibodies: Goat anti-rabbit HRP at 1:20,000, incubate at RT for 1 hr.SARS-CoV-2 alpha variant spike antibody can specifically detect alpha variant spike S1 protein, but not spike S1 protein of WT and other tested variants 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, 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 UK variant (B.1.1.7 lineage) was increased at least 50%. Increased severity and higher death rate were also found in UK variant. UK 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 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

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Gu et al. Science 369(6511):1603-1607
Hoffmann et al. Molecular Cell 78(4):779-784.e5
Davies et al. Science 372(6538):eabg3055.
Davies et al. Nature. 593(7858):270-274.
Graham, et al. The Lancet Public Health. 6(5): e335-e345.
Horby et al. New & Emerging Threats Advisory Group. 2020;91:264-266.

NCBI AND UNIPROT INFORMATION

NCBI GeneID

[43740568](#)

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/covid-19-uk-variant-b117-spike-p681h-coronavirus-antibody-western-blot-elisa/40928>