

Product Datasheet

SARS-CoV-2 (COVID-19) Spike Q493R G496S Q498R N501Y Y505H Antibody (Omicron) (orb1239988)

Description	SARS-CoV-2 (COVID-19) Spike Q493R G496S Q498R N501Y Y505H Antibody (Omicron)
Species/Host	Rabbit
Reactivity	Virus
Conjugation	Unconjugated
Tested Applications	ELISA, IF, NeA, WB
Immunogen	Anti-SARS-CoV-2 Spike Q493R G496S Q498R N501Y Y505H (Omicron) antibody(orb1239988) was raised against a peptide corresponding to 20 amino acids in the receptor binding domain of SARS-CoV-2 Omicron variant (B.1.1.529) Spike protein. The immunogen is located within 480-530 amino acids of SARS-CoV-2 Omicron variant (B.1.1.529) Spike protein.
Target	S
Preservatives	Anti-SARS-CoV-2 Omicron Variant Spike antibody is supplied in PBS containing 0.02% sodium azide.
Form/Appearance	Liquid
Concentration	1 mg/mL
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Isotype	IgG
Clonality	Polyclonal

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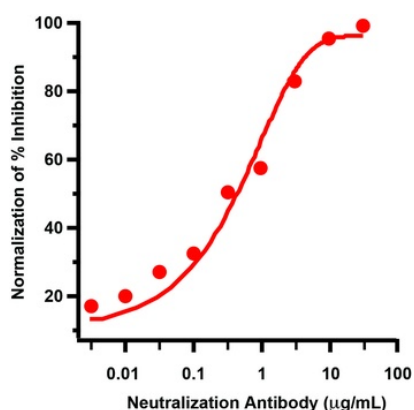
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Uniprot ID **P0DTC2**

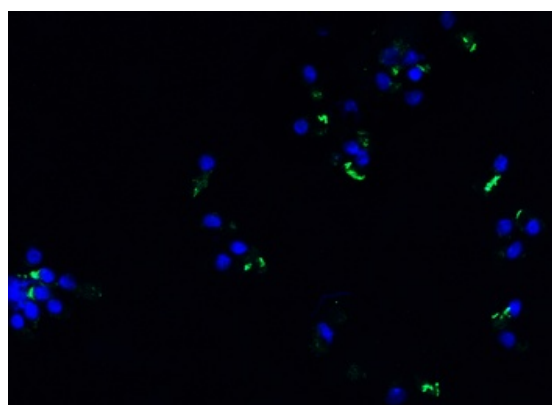
NCBI **QHD43416**

Expiration Date 12 months from date of receipt.

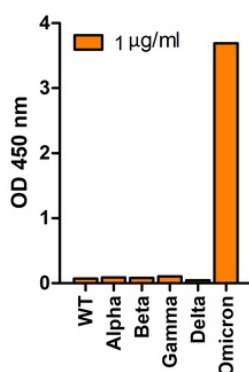


Immunofluorescence Validation of Spike RBD in the Nasal Swab Sample of Omicron Variant COVID-19 Patient.

Immunofluorescent analysis of 4% paraformaldehyde-fixed patient nasal swab sample labeling spike RBD with orb1239988 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



Neutralization Assay of Omicron Variant Pseudovirus by SARS-CoV-2 Omicron Variant Spike RBD Antibody. Neutralization antibodies: Anti-SARS-CoV-2 Spike RBD antibodies, orb1239988, dilution: 0.3–30000 ng/mL. Pseudovirus: SARS-CoV-2 Omicron Spike Pseudovirus, orb1227402. Infected Cells: ACE2-overexpressing 293T cells. Diluted antibody was incubated with Omicron pseudovirus at 37 °C for 1 hr. ACE2-overexpressing 293T cells were added in each well and incubated at 37 °C for 48 hrs. Luminescence reporter reagent was added in each well and the final results were read with the luminescence plate reader. Percent inhibition is calculated based on the RLU value.



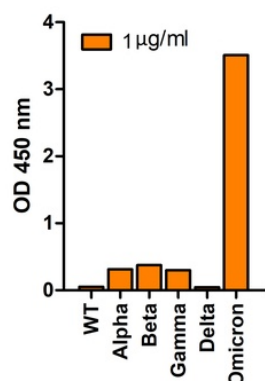
SARS-Cov-2 Omicron Variant Spike Antibodies Specifically Detect Omicron Variant Spike S1 Protein in an ELISA. Coating Antigen: SARS-CoV-2 spike S1 proteins of WT, alpha variant (B.1.1.7), beta variant (B.1.351), gamma variant (P.1), delta variant (B.1.617.2), and omicron variant (B.1.1.529), 1 µg/mL, incubated at 4 °C overnight. Detection Antibodies: SARS-CoV-2 Omicron Variant Spike antibody, orb1239988, 1 µg/mL, incubated at RT for 1 hr. Secondary Antibodies: Goat anti-rabbit HRP at 1:20000, incubated at RT for 1 hr.

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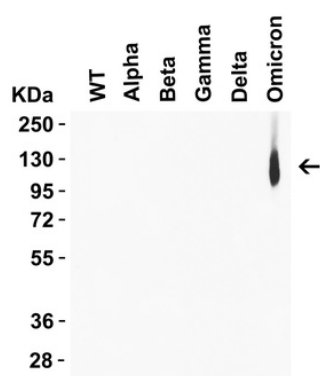
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WB Validation of of Omicron Variant Spike Antibodies with SARS-CoV-2 Variant Spike S1 Proteins. Loading: 30 ng of SARS-CoV-2 spike S1 proteins, including WT, alpha variant (B.1.1.7), beta variant (B.1.351), gamma variant (P.1), delta variant (B.1.617.2), and omicron variant (B.1.1.529). Detection Antibodies: SARS-CoV-2 Omicron Variant Spike antibody, orb1239988, 2 µg/mL, incubated at RT for 1 hr. Secondary Antibodies: Goat anti-rabbit HRP at 1:20000, incubated at RT for 1 hr. SARS-CoV-2 Omicron Variant Spike antibody (orb1239988) specifically detects Omicron variant spike S1 protein (orb1228204), but not spike S1 protein of WT (orb1231589) and all other variants.

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