

Product Datasheet

SARS-CoV-2 Spike RBD Neutralizing Antibody, monoclonal (orb1274211)

Catalog Number	orb1274211
Category	Antibodies
Description	SARS-CoV-2 Spike RBD Neutralizing Antibody, monoclonal
Target	S
Clonality	Recombinant
Isotype	Human IgG1/kappa
Conjugation	Unconjugated
Reactivity	Human
Form/Appearance	Lyophilized
Concentration	batch dependent
Buffer/Preservatives	Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4 . Normally trehalose is added as protectant before lyophilization.
Purification	>95% as determined by SDS-PAGE.
Immunogen	Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 is isolated from a SARS-CoV-2 infected patient and is recombinantly produced from human 293 cells (HEK293). This antibody recognizes the SARS-CoV-2 Spike Protein RBD domain and inhibits the interaction between SARS-CoV-2 RBD and ACE2 with an IC50 of 1.47 μ g/mL using SARS-CoV-2 Inhibitor Screening Kit .Pseudovirus assay shows that this antibody has potent neutralizing activity against pseudovirus bearing SARS-CoV-2 Spike protein.

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

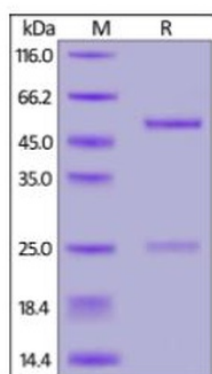
Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

UniProt ID	P0DTC2
Tested applications	ELISA, WB
Specificity	This product is a specific antibody against SARS-CoV-2 Spike protein RBD domain. No cross-reactivity is detected with Spike protein RBD domain of other coronaviruses, including SARS-CoV, MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-OC43 and HCoV-HKU1.
Antibody Type	Primary Antibody
Modifications	None
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
Expiration Date	12 months from date of receipt.



Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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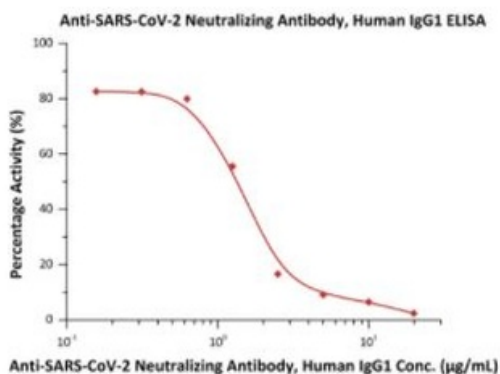
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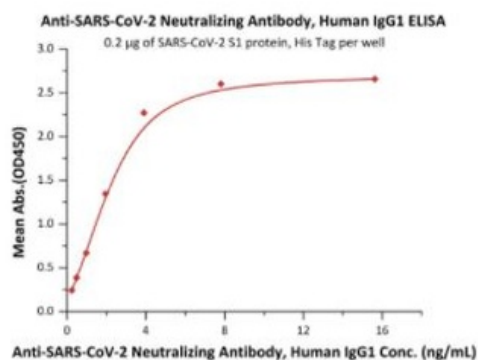
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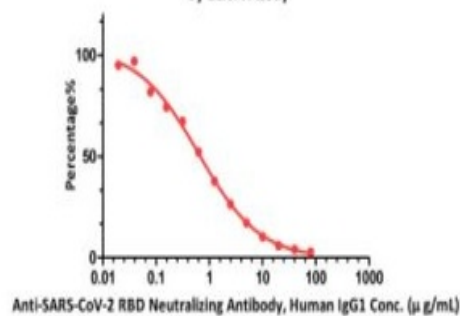


Serial dilutions of Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 was detected by SARS-CoV-2 Inhibitor screening Kit with a half maximal inhibitory concentration (IC₅₀) of 1.472 $\mu\text{g/mL}$ (QC tested).



Immobilized SARS-CoV-2 S1 protein, His Tag at 2 $\mu\text{g/mL}$ (100 μL /well) can bind Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 with a linear range of 0.2-1.95 ng/mL (QC tested).

Detection of Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 by ELISA Assay



Serial dilutions of Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 was detected by Anti-SARS-CoV-2 Neutralizing Antibody Titer Serologic Assay Kit with a half maximal inhibitory concentration (IC₅₀) of 0.6265 $\mu\text{g/mL}$ (Routinely tested).

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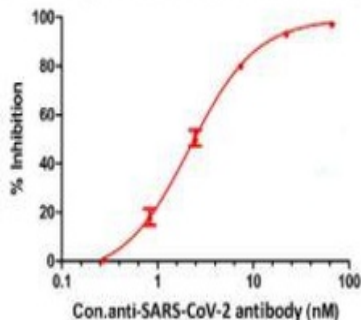
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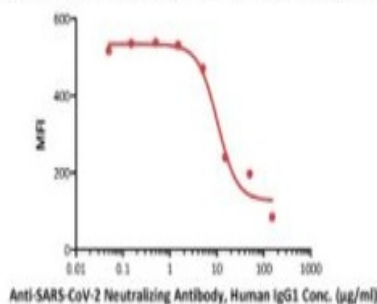
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Neutralization assay of anti-SARS-CoV-2 antibodies using pseudovirus



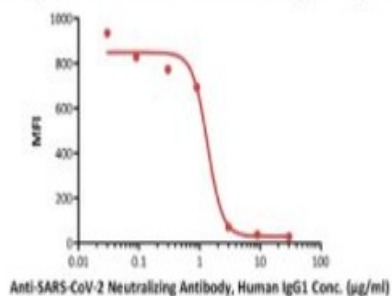
Serial dilutions of Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody was incubated with SARS-CoV-2 pseudotyped virus at 37C for 1 hour. Afterward, Huh-7 cells were added, followed by incubation at 37C for 24h. Chemiluminescence detection was performed and the virus neutralization titers (IC50) is 2.181 nM using the Reed-Muench method.

Competitive experiment of Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1



FACS analysis shows that the binding of SARS-CoV-2 S protein RBD, Mouse IgG2a Fc Tag to Vero E6 cells surface ACE2 was inhibited by increasing concentration of Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1. The concentration of SARS-CoV-2 S protein RBD used is 5 µg/ml. The IC50 is 10.33 µg/ml (Routinely tested).

Competitive experiment of Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1



FACS analysis shows that the binding of SARS-CoV-2 S1 protein, Mouse IgG2a Fc Tag to Vero E6 cells surface ACE2 was inhibited by increasing concentration of Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1. The concentration of SARS-CoV-2 S1 protein used is 3 µg/ml. The IC50 is 1.352 µg/ml (Routinely tested).

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