

Product datasheet

Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] ab283946

Recombinant RabMAb

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Overview

Product name	Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174]
Description	Rabbit monoclonal [EPR24852-174] to SARS-CoV-2 Spike Glycoprotein S1
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, Indirect ELISA
Species reactivity	Reacts with: SARS-CoV-2
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Recombinant human coronavirus SARS-CoV-2 Spike glycoprotein S1, Expi293 cells transfected with SARS-CoV2 ORF7. Indirect ELISA: recombinant human coronavirus SARS-CoV-2 Spike glycoprotein S1.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR24852-174

Isotype IgG

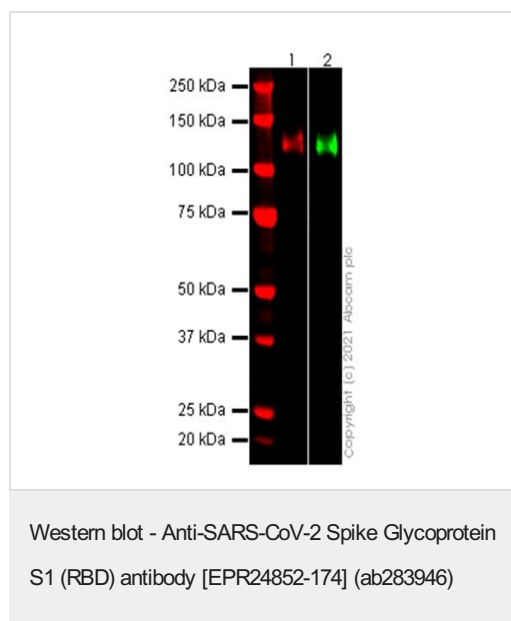
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab283946 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		1/500.
Indirect ELISA		Use a concentration of 2e-005 - 1 µg/ml.

Images



All lanes : Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] (ab283946) at 1/500 dilution

All lanes : Recombinant human coronavirus SARS-CoV-2 Spike Glycoprotein S1 (Active) (**ab273068**)

Lysates/proteins at 0.5 µg per lane.

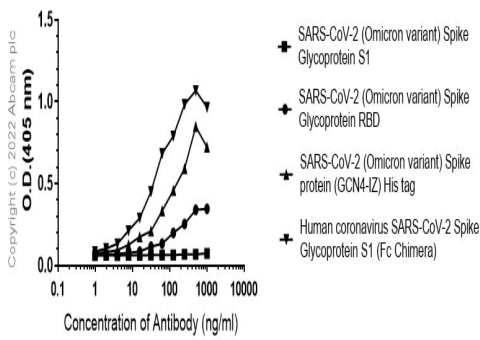
Lane 1: Red – loading control Mouse anti-6x His tag antibody (**ab18184**) observed at 125 kDa

Lanes 2: Green – ab283946 observed at 125 kDa

ab283946 was shown to bind specifically to SARS-CoV-2 spike glycoprotein S1 in Western blot. Samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) at 1/20000 dilution.

Blocking buffer: 3% milk in TBS-0.1% Tween® 20 (TBS-T)

Indirect ELISA antibody dose-response curve antigen at 1000 ng/ml

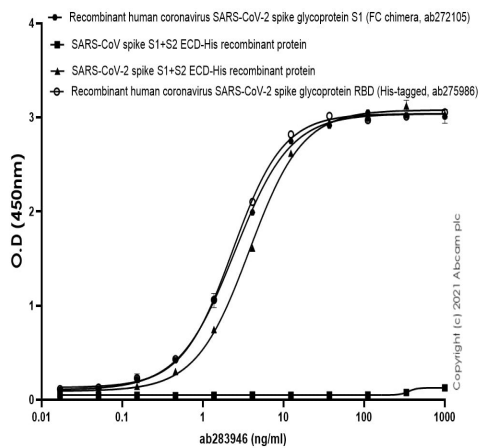


Indirect ELISA - Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] (ab283946)

Indirect ELISA showing primary antibody ab283946 binding to recombinant human coronavirus SARS-CoV-2 (Omicron variant) Spike Glycoprotein S1; SARS-CoV-2 (Omicron variant) Spike Glycoprotein RBD; SARS-CoV-2 Omicron variant Spike protein (GCN4-IZ) His tag; Human coronavirus SARS-CoV-2 Spike Glycoprotein S1 (Fc Chimera).

Plates were coated with recombinant human coronavirus SARS-CoV-2 (Omicron variant) Spike Glycoprotein S1; SARS-CoV-2 (Omicron variant) Spike Glycoprotein RBD; SARS-CoV-2 Omicron variant Spike protein (GCN4-IZ) His tag; Human coronavirus SARS-CoV-2 Spike Glycoprotein S1 (Fc Chimera) at 1000 ng/ml. Binding of ab283946 was assessed in a serial dilution range 0 - 1000 ng/mL.

Binding was detected using Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution. Substrate Solution: p-nitrophenyl phosphate (PNPP)

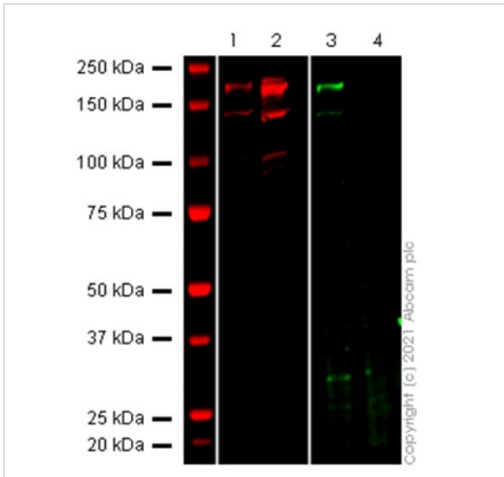


Indirect ELISA - Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] (ab283946)

Indirect ELISA showing primary antibody ab283946 binding to recombinant human coronavirus SARS-CoV-2 spike glycoprotein S1 (Fc Chimera, **ab272105**), SARS-CoV-2 spike S1+S2 ECD-His recombinant protein and recombinant human coronavirus SARS-CoV-2 spike glycoprotein RBD (His tagged, **ab275986**).

Plates were coated with recombinant human coronavirus SARS-CoV-2 spike glycoprotein S1 (Fc Chimera, **ab272105**), SARS-CoV-2 spike S1+S2 ECD-His recombinant protein, SARS-CoV spike S1+S2 ECD-His recombinant protein and recombinant human coronavirus SARS-CoV-2 spike glycoprotein RBD (His tagged, **ab275986**) at 1000 ng/ml. Binding of ab283946 was assessed in a serial dilution range 0.016- 1000 ng/mL (a 3-fold serial dilution).

Binding was detected using pre-adsorbed secondary antibody, goat anti-rabbit IgG H&L (HRP, **ab97080**) at 1/2000 dilution.



Western blot - Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] (ab283946)

All lanes : Anti-SARS-CoV-2 Spike Glycoprotein S1 (RBD) antibody [EPR24852-174] (ab283946) at 1/500 dilution

Lanes 1 & 3 : Expi293 cells transfected with SARS-CoV2 3xFlag Spike Protein

Lanes 2 & 4 : Expi293 cells transfected with SARS-CoV1 3xFlag Spike Protein

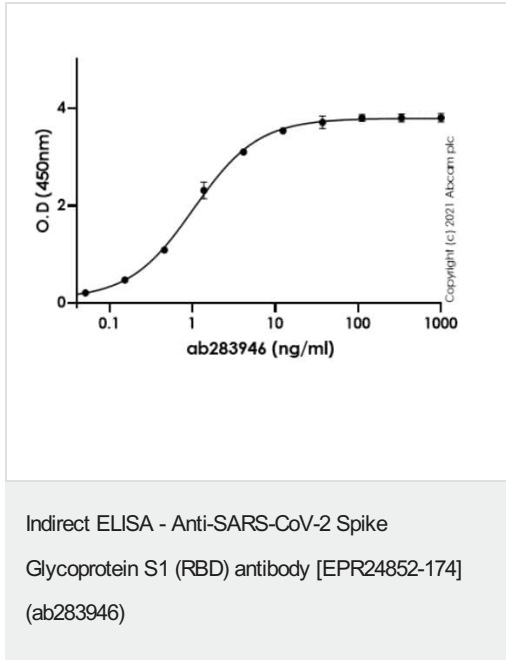
Lysates/proteins at 40 µg per lane.

Lane 1 & 2: Red – loading control Goat anti-DDDDK tag antibody ([ab95045](#), Binds to FLAG tag sequence) observed at 200 kDa

Lanes 3 & 4: Green – ab283946 observed at 200 kDa

ab283946 was shown to bind specifically to SARS-CoV-2 spike glycoprotein S1 in Western blot. Samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Donkey anti-Goat IgG H&L (IRDye® 800CW) preadsorbed ([ab216775](#)) and Donkey anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed ([ab216779](#)) at 1/20000 dilution.

Blocking buffer: 3% milk in TBS-0.1% Tween® 20 (TBS-T)



Indirect ELISA showing primary antibody ab283946 binding to the antigen **ab272105** (recombinant human coronavirus SARS-CoV-2 Spike glycoprotein S1 (Fc Chimera)). Plates were coated with recombinant human coronavirus SARS-CoV-2 spike glycoprotein S1 (Fc Chimera, **ab272105**) at 1000 ng/ml. Binding of ab283946 was assessed in a serial dilution range 0.016- 1000 ng/mL (a 3-fold serial dilution).

Binding was detected using pre-adsorbed secondary antibody, goat anti-rabbit IgG H&L (HRP, **ab97080**) at 1/2000 dilution.

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