

## SARS-CoV-2 Spike IgG/IgM Antibody (AM043105)

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**Catalog No:** 91385

RRID: AB\_3216361

Clone: AM043105 (105-43)

Application(s): ELISA

Reactivity: Virus

Quantity: 100 µg

Purification: Ni-NTA

Host: Human

Isotype: IgG/IgM

Molecular Weight: 141 kDa (full length S1 protein)

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**Background:** COVID-19, which is short for coronavirus disease 2019, is the official name of the respiratory disease caused by infection with the novel coronavirus SARS-CoV-2. The virus that causes COVID-19 was named SARS-CoV-2 because it is a coronavirus genetically similar to, yet distinct from, the virus that caused the severe acute respiratory syndrome (SARS) outbreak in 2003. Studying the details of how this virus replicates and causes the disease will allow scientists and physicians to more rapidly develop fast and accurate methods of detection as well as to deploy therapeutic and vaccine strategies.

This antibody was derived from COVID-19 patients who have cleared the virus. Patient serum IgG was sequenced and expressed as a chimeric full-length human immunoglobulin in mammalian 293 cells. This chimeric antibody contains a heavy chain CH1 that is IgG1 isotype, whereas its CH2/CH3/CH4 regions are IgM isotype. The antibody contains a Flag Tag and an 8X His Tag at the C-terminus.

**Immunogen:** N/A - derived from COVID-19 patients who have cleared the virus. Their antibodies were screened for reactivity to SARS-CoV-2 and then sequenced and expressed as recombinant antibodies.

**Buffer:** PBS, 30% glycerol, 0.035% sodium azide. Sodium azide is highly toxic.

**Application Notes:**

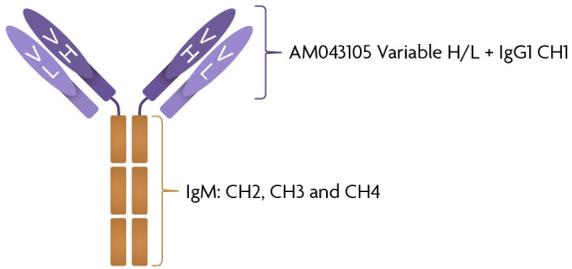
Applications Validated by Active Motif:

ELISA: 0.01 - 1 µg/ml

This antibody has been tested by ELISA and is specific for SARS-CoV-2 Spike protein S1 Subunit of Receptor Binding Domain (RBD).

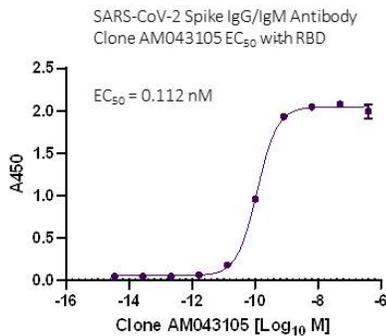
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



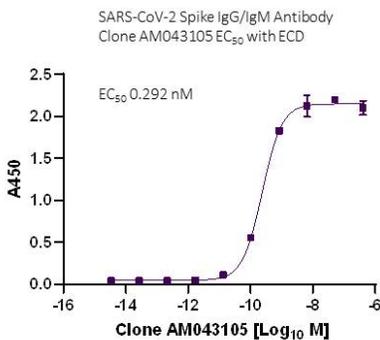
### SARS-CoV-2 Spike IgG/IgM antibody structure

Patient serum IgG was sequenced and expressed as a chimeric full-length human immunoglobulin in mammalian 293 cells. This chimeric antibody contains a heavy chain CH1 that is IgG1 isotype, whereas its CH2/CH3/CH4 regions are IgM isotype. The antibody contains a Flag Tag and an 8X His Tag at the C-terminus.



### SARS-CoV-2 Spike IgG/IgM Antibody (AM043105) tested by ELISA using SARS Spike protein RBD.

SARS-CoV-2 Spike RBD protein was coated onto microtiter plates at 10 µg/mL and then incubated with a dilution series of SARS-CoV-2 Spike IgG/IgM Antibody (clone AM043105). Bound antibodies were detected with anti-human IgM conjugated to horseradish peroxidase (HRP) followed by incubation with HRP Substrate and then measuring the resulting absorbance at 450 nm.



### SARS-CoV-2 Spike IgG/IgM Antibody (AM043105) tested by ELISA using SARS Spike protein ECD.

SARS-CoV-2 Spike Extracellular Domain (ECD a.a. 14-1213) protein was coated onto microtiter plates at 5 µg/mL and then incubated with a dilution series of SARS-CoV-2 Spike IgG/IgM Antibody (clone AM043105). Bound antibodies were detected with anti-human IgM conjugated to horseradish peroxidase (HRP) followed by incubation with HRP Substrate and then measuring the resulting absorbance at 450 nm.