

## PRODUCT DATA SHEET

Bioworld Technology, Inc.

# **COVID-19 S-IgA Human monoclonal neutralizing antibody**

Catalog: MB66247 Host: Human Cells Reactivity: COVID-19

#### **BackGround:**

The cause of the COVID-19 pandemic is a novel and highly pathogenic coronavirus, termed SARS-CoV-2 (seacute respiratory syndrome coronavirus-2). SARS-CoV-2 is a member of the Coronaviridae family of viruses. The genome of SARS-CoV-2 is similar to other coronaviruses, and is comprised of four key structural proteins: S, the spike protein, E, the envelope protein, M, the membrane protein, and N, the nucleocapsid protein. Coronavirus spike proteins are class I fusion proteins and harbor an ectodomain, a transmembrane domain, and an intracellular tail. The highly glycosylated ectodomain projects from the viral envelope surface and facilitates attachment and fusion with the host cell plasma membrane. The ectodomain can be further subdivided into host receptor-binding domain (RBD) (S1) and membrane-fusion (S2) subunits, which are produced upon proteolysis by host proteases at S1/S2 and S2' sites. S1 and S2 subunits remain associated after cleavage and assemble into crown-like homotrimers. In humans, both SARS-CoV and SARS-CoV-2 spike proteins utilize the angiotensin-converting enzyme 2 (ACE2) protein as a receptor for cellular entry. Spike protein subunits represent a key antigenic feature of coronavirus virions, and therefore represent an important target of vaccines, novel therapeutic antibodies, and small-molecule inhibitors.

## **Product:**

1 mg/ml. Human IgA. Liquid in 0.01M Phosphate Buffered Saline, pH 7.4.

#### **Molecular Weight:**

#### **Swiss-Prot:**

#### P0DTC2

#### **Purification&Purity:**

>95%, cultured in vitro under conditions free from animal derived components.

#### **Applications:**

ELISA: Use at an assay dependent dilution.

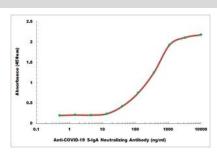
#### **Storage&Stability:**

Store at  $4 \, \mathbb{C}$  short term. Aliquot and store at  $-20 \, \mathbb{C}$  long term. Avoid freeze-thaw cycles.

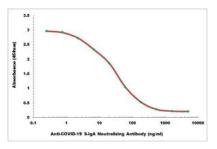
### **Specificity:**

Recognizes COVID-19 S Protein, COVID-19 S-RBD Protein and block ACE-2 receptor binding.

#### **DATA:**



Immobilized Recombinant COVID-19 S Protein RBD-SD1 at 5 ug/ml can bind Anti-COVID-19 S-IgA Neutralizing Antibody, the EC50 is less than 416 ng/ml.



Anti-COVID-19 S-IgA Neutralizing Antibody can block Recombinant Human ACE2 Protein and Recombinant COVID-19 S Protein RBD-SD1 interaction, the IC50 for this effect is 19.8 ng/ml.

#### Note:

For research use only, not for use in diagnostic procedure.

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