

Anti-SARS-CoV-2 ORF7a Antibody

CATALOG NO.: A2259-100 (100 µg)

BACKGROUND DESCRIPTION: Severe acute respiratory syndrome coronavirus-2 (SARS CoV-2) is an infectious disease caused by a novel beta-coronavirus called SARS-CoV-2. The SARS-CoV-2 is a large enveloped, positive-sense RNA with a genome about ~ 30 kb long. The genome encodes 11 open reading frames. The open reading frame ORF7a is a type I transmembrane protein that codes for viral non-structural (accessory) proteins of unknown function. It is localized to the Golgi apparatus but may also be found on cell surfaces. In comparison with ORF7a of SARS-CoV, it has a sequence identity of 85.2% and a sequence similarity of 95.9%. Due to overlap with ORF7b, ORF7a shares a transcriptional regulatory sequence. ORF7a possesses a 15 amino acid N-terminal signal peptide, an 81 amino acid luminal domain, a 21 amino acid transmembrane domain, and a 5 amino acid cytoplasmic tail. A recent study demonstrated that SARS-CoV ORF7a acts as an antagonist to Bone marrow stromal antigen 2 (BST-2) antiviral activities. ORF7a extracellular domain binds to the unglycosylated extracellular domain of BST-2 in the Golgi apparatus and prevents N-linked glycosylation that is necessary for BST-2 antiviral activity.

ALTERNATE NAMES: ORF7a, Accessory protein 7a, Protein U122, Protein X4, ORF7a protein

ANTIBODY TYPE: Polyclonal

HOST/ISOTYPE: Rabbit / IgG

IMMUNOGEN: Amino acids 1-100 of ORF7a protein

MOLECULAR WEIGHT: 13 kDa

SPECIFICITY: Recognizes SARS-CoV-2 ORF7a protein

FORM: Liquid

FORMULATION: In PBS, pH 7.4, 50% glycerol, 0.05% proclin 300

SPECIES REACTIVITY: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

STORAGE CONDITIONS: Store at -20 to -80°C. Avoid repeated freeze/thaw cycles

This information is only intended as a guide. The optimal dilutions must be determined by the user

RELATED PRODUCTS:

Anti-IL-6 receptor (Tocilizumab), Human IgG1 Antibody (A1447)

Anti-TNF alpha (Infliximab), Human IgG1 Antibody (A1097)

Anti-ACE2 Antibody (A2072)

Anti-SARS-CoV-2 NP Antibody (A2061)

FOR RESEARCH USE ONLY! Not to be used on humans.