

# SARS-CoV-2 (COVID-19) ORF7a Antibody

Infectious Disease, COVID-19

Catalog # ASC12221

## Product Information

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| Application           | E                                                                                                                                                                |
| Primary Accession     | <a href="#">P0DTC7.1</a>                                                                                                                                         |
| Other Accession       | <a href="#">P0DTC7.1</a>                                                                                                                                         |
| Host                  | Rabbit                                                                                                                                                           |
| Clonality             | Polyclonal                                                                                                                                                       |
| Isotype               | IgG                                                                                                                                                              |
| Clone Names           | ORF7a                                                                                                                                                            |
| Concentration (mg/ml) | 1 mg/mL                                                                                                                                                          |
| Conjugate             | Unconjugated                                                                                                                                                     |
| Application Notes     | Antibody validated: SARS-CoV-2 (COVID-19) ORF7a antibody can detect 2 ng of free peptide at 1 µg/mL in ELISA. All other applications and species not yet tested. |

## Additional Information

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| Gene ID                  | 43740573                                                                                                                                                                                                                                                              |
| Other Names              | ORF7a protein, Accessory protein 7a, Protein U122, Protein X4, ORF7a                                                                                                                                                                                                  |
| Reconstitution & Storage | SARS-CoV-2 (COVID-19) ORF7a antibody can be stored at 4 °C for three months and -20 °C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Precautions              | SARS-CoV-2 (COVID-19) ORF7a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                                |

## Protein Information

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### Background

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Coronavirus disease 2019 (COVID-19), formerly known as 2019-nCoV acute respiratory disease, is an infectious disease caused by SARS-CoV-2, a virus closely related to the SARS virus (1). The disease is the cause of the 2019–20 coronavirus outbreak (2). SARS-CoV-2 virus proteins include structural proteins, non-structural proteins and accessory factors. The structure of SARS-CoV-2 consists of the following: a spike protein (S), hemagglutinin-esterase dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleocapsid protein (N) and RNA. SARS-CoV-2 non-structural protein is ORF1ab that consists of 16 proteins (nsP1–nsP16), while accessory factors include ORF3a, ORF3b, ORF6, ORF7a, ORF7b, ORF8, ORF9b, ORF7a and ORF7a. ORF7a plays a role as antagonist of host tetherin (BST2), disrupting its antiviral effect. It acts by binding to BST2 thereby interfering with its glycosylation. It may suppress small interfering RNA (siRNA) and may bind to host ITGAL, thereby playing a role in attachment or modulation of leukocytes (3).

## References

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Gorbalenya. bioRxiv: 2020.;Hui et al. Int J Infect Dis. 2020;91:264-266.;Taylor et al. J. Virol. 2015; 89:11820-11833.

## Images

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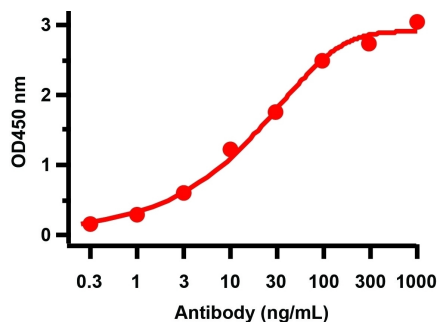


Figure 1 ELISA Validation  
Antibodies: SARS-CoV-2 (COVID-19) ORF7a Antibody, ASC12221. A direct ELISA was performed using SARS-CoV-2 ORF7a immunogen peptide (ASC12221P)) as coating antigen and the anti-SARS-CoV-2 (COVID-19) ORF7a antibody as the capture antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 0.3 ng/mL to 1000 ng/mL

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.