

# SARS-CoV-2 (COVID-19) Spike RBD Antibody (biotin)

Catalog # ASC12099

## Product Information

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|-----------------|--------------------------|
| Other Accession | <a href="#">QHD43416</a> |
| Host            | Rabbit                   |
| Clonality       | Polyclonal               |
| Isotype         | IgG                      |
| Clone Names     | S                        |

## Additional Information

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| Gene ID                  | 43740568                                                                                                                                                                                                                                                                           |
| Alias Symbol             | S                                                                                                                                                                                                                                                                                  |
| Other Names              | SARS-CoV-2 (COVID-19) Spike RBD Antibody (biotin): Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Surface Glycoprotein, Spike protein                                                                                                                               |
| Reconstitution & Storage | SARS-CoV-2 (COVID-19) Spike RBD antibody (biotin) 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) Spike RBD Antibody (biotin) is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                                |

## 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). The structure of 2019-nCoV 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. Coronavirus invades cells through Spike (S) glycoproteins, a class I fusion protein. It is the major viral surface protein that coronavirus uses to bind to the human cell surface receptor. It also mediates the fusion of host and viral cell membrane, allowing the virus to enter human cells and begin infection (3). The spike protein is the major target for neutralizing antibodies and vaccine development (4). The protein modeling suggests that there is strong interaction between Spike protein receptor-binding domain and its host receptor angiotensin-converting enzyme 2 (ACE2), which regulate both the cross-species and human-to-human transmissions of COVID-19 (5). The recent study has shown that the SARS-CoV-2 spike protein binds ACE2 with higher affinity than SARS-CoV spike protein (6).

## References

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Gorbalenya. bioRxiv. 2020. Hui et al. Int J Infect Dis. 2020;91:264-266. Belouzard et al. Viruses. 2012;4(6):1011-33. Lee et al. J Virol. 2006;80(8):4079-87. Wan et al. J Virol. 2020. Wrapp et al. Science. 2020.