



# Recombinant SARS-CoV-2 Spike RBD Protein (a.a. 319-541) [His] (DAGC209)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

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| <b>Product Overview</b> | A DNA sequence encoding the receptor binding domain (RBD) of SARS-CoV-2 spike was expressed with histidine tag at the N-terminus.                                                           |
| <b>Species</b>          | SARS-CoV-2                                                                                                                                                                                  |
| <b>Purity</b>           | > 95%                                                                                                                                                                                       |
| <b>Conjugate</b>        | His                                                                                                                                                                                         |
| <b>Applications</b>     | SDS-PAGE                                                                                                                                                                                    |
| <b>Molecular Weight</b> | ~25 kDa                                                                                                                                                                                     |
| <b>Format</b>           | Liquid                                                                                                                                                                                      |
| <b>Size</b>             | 100 µg, 500 µg, 1 mg                                                                                                                                                                        |
| <b>Buffer</b>           | 50 mM Na <sub>2</sub> HPO <sub>4</sub> (pH 7.4), 0.5 M NaCl, 450 mM imidazole, 6 M urea.                                                                                                    |
| <b>Preservative</b>     | None                                                                                                                                                                                        |
| <b>Storage</b>          | Upon arrival, the protein may be stored for 2 weeks at 4°C. For long term storage, it is recommended to store at -20°C or -80°C in appropriate aliquots. Avoid repeated freeze-thaw cycles. |

## BACKGROUND

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| <b>Introduction</b> | The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell: they are essential for both host specificity and viral infectivity. The |
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term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV.

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**Keywords**

SARS-CoV-2; coronavirus; SARS-CoV-2 spike RBD; SARS-CoV-2 spike protein

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