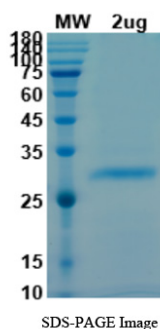


### Product Details

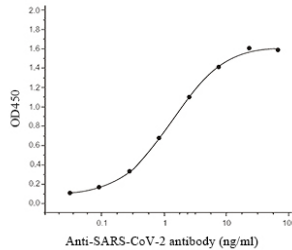
#### Summary

|                                 |  |
|---------------------------------|--|
| <b>Catalog#</b>                 | ATMP02459COV   |
| <b>description</b>              | Recombinant SARS-CoV-2 S Protein RBD is produced by Mammalian cells expression system and the target gene encoding Thr333-Pro527 is expressed with C-His Tag                   |
| <b>Expression system</b>        | Mammalian cells  |
| <b>Species</b>                  | Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)   |
| <b>Accession #</b>              | YP_009724390.1   |
| <b>Alternative names</b>        | 2019-nCov RBD Protein, 2019-nCoV Spike RBD Protein   |
| <b>Predicted Molecular Mass</b> | 23.66kDa   |
| <b>Actual Molecular Mass</b>    | 30kDa  |
| <b>Purity</b>                   | >90% as determined by SDS-PAGE   |
| <b>Endotoxin level</b>          | Please contact with the lab for this information.  |
| <b>Formulation</b>              | Supplied as solution form in PBS, pH7.5/ Supplied as lyophilized from PBS, pH7.5   |
| <b>Shipping</b>                 | In general, proteins are shipped out with blue ice unless customers require otherwise.   |
| <b>Stability &amp; Storage</b>  | Use a manual defrost freezer and avoid repeated freeze thaw cycles.<br>Store at 2 to 8 °C for one week .<br>Store at -20 to -80 °C for twelve months from the date of receipt. |
| <b>Reconstitution</b>           | Please refer to the instruction in the hard copy of COA.   |
| <b>Application</b>              | Immunogen  |

#### SDS-PAGE image



## Bioactivity



Recombinant SARS-CoV-2 (2019-nCoV) S Protein RBD (ATMP02459COV) can bind Anti-SARS-CoV-2 antibody (ATMA10157Mo) measured by a functional ELISA assay. The EC50 of Recombinant SARS-CoV-2 (2019-nCoV) S Protein RBD is 2.6 ng/mL.

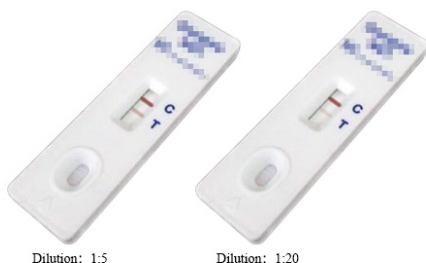
## Background

Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2, DPP4, CEACAM etc.. 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. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

## Product performance

Form Recombinant SARS-CoV-2 (2019-nCoV) S Protein RBD

## Tested Picture



## Note

For research use only.