

## Active Recombinant COVID-19 Spike RBD Protein, His Tag (BA.2.12.1/Omicron), His-tagged

**Cat. No.** Spike-4644V    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant COVID-19 Protein, His Tag (BA.2.12.1/Omicron)(Arg 319 - Lys 537), fused with His tag, was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Sars-CoV-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | Arg 319 - Lys 537                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Form</b>             | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Bio-activity</b>     | Immobilized SARS-CoV-2 Spike RBD, His Tag (BA.2.12.1/Omicron) at 1 µg/mL (100 µL/well) can bind Human ACE2, Fc Tag with a linear range of 0.4-13 ng/mL. Immobilized SARS-CoV-2 Spike RBD, His Tag (BA.2.12.1/Omicron) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 with a linear range of 0.1-6 ng/mL. Immobilized SARS-CoV-2 Spike RBD, His Tag (BA.2.12.1/Omicron) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (Omicron Specific) with a linear range of 0.1-63 ng/mL. |
| <b>Molecular Mass</b>   | This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 26.7 kDa. The protein migrates as 34-37 kDa under reducing (R) condition                                                                                                                                                                                                                                                                                                                                                                                                |

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|                       |                                                                                                                                                                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                                                    |
| <b>Endotoxin</b>      | Less than 1.0 EU per µg by the LAL method.                                                                                                                                                                                                                                          |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.                                                                                                                                                                                                                                                     |
| <b>Storage</b>        | For long term, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles. This product is stable after at: -20°C to -70°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | S surface glycoprotein [ Severe acute respiratory syndrome coronavirus 2 ]                                  |
| <b>Official Symbol</b> | Spike                                                                                                       |
| <b>Synonyms</b>        | Spike; S1 protein; Spike glycoprotein Subunit1; S glycoprotein Subunit1; Spike protein S1; COVID-19 Omicron |
| <b>Gene ID</b>         | 43740568                                                                                                    |
| <b>Protein Refseq</b>  | YP_009724390.1                                                                                              |
| <b>UniProt ID</b>      | P0DTC2                                                                                                      |

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