

## Recombinant COVID-19 Spike S1+S2 (157-158 deletion, T19R, G142D, E156G, L452R, T478K, D614G, P681R, D950N) protein(Met1-Pro1213), His&Avi-tagged, Biotinylated

**Cat. No.** Spike-1214V    **Lot. No.** (See product label)

### SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinant SARS-CoV-2 Spike S1+S2 (YP_009724390.1, with mutations 157-158 deletion, T19R, G142D, E156G, L452R, T478K, D614G, P681R, D950N) (Met1-Pro1213) was expressed in Insect Cells with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. The mutations were identified in the SARS-CoV-2 variant (known as B.1.617.2) which emerged in the India. |
| <b>Species</b>           | Sars-CoV-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>            | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>     | Met1-Pro1213                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Conjugation/Label</b> | Biotin                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Form</b>              | Lyophilized from sterile 20mM Tris, 300mM NaCl, 10% glycerol, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>    | The recombinant SARS-CoV-2 Spike S1+S2 consists of 1222 amino acids and predicts a molecular mass of 136.01 kDa.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Endotoxin</b>         | < 1.0 EU per µg protein as determined by the LAL method.                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | > 90 % as determined by SDS-PAGE.                                                                                                                                                                                                               |
| <b>Storage</b>        | Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| <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.                                                                   |
| <b>Conjugation</b>    | Biotin                                                                                                                                                                                                                                          |

## 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 |
| <b>Gene ID</b>         | 43740568                                                                                  |
| <b>Protein Refseq</b>  | YP_009724390.1                                                                            |
| <b>UniProt ID</b>      | P0DTC2                                                                                    |

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