# Recombinant SARS-CoV-2 Omicron Variant BA.5 Spike S1 RBD Protein, C-His-tagged

**Cat. No.** S-649S **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant SARS-CoV-2 Omicron variant BA.5 spike S1 subunit receptor binding protein (RBD) with 16 mutant sites (G339D, S371F, S373P, S375F, T376A, D405N, K417N, N440K, L452R, S477N, T478K, E484A, F486V, Q498R, N501Y, Y505H) with C-terminal His-tag, derived from the transfected human HEK293 cells. |
| **Species** | SARS-CoV-2 |
| **Source** | HEK293 |
| **ProteinLength** | Arg319-Phe541, 16 mutant sites (G339D, S371F, S373P, S375F, T376A, D405N, K417N, N440K, L452R, S477N, T478K, E484A, F486V, Q498R, N501Y, Y505H). |
| **Description** | Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an enveloped, positive-sense, single-stranded RNA virus that causes coronavirus disease 2019 (COVID-19). Virus particles include the RNA genetic material and structural proteins needed for invasion of host cells. Once inside the cell the infecting RNA is used to encode structural proteins that make up virus particles, nonstructural proteins that direct virus assembly, transcription, replication and host control and accessory proteins whose function has not been determined.~ The structural proteins of SARS-CoV-2 include the envelope protein (E), spike or surface glycoprotein (S), membrane protein (M) and the nucleocapsid protein (N). The spike glycoprotein is found on the outside of the virus particle and gives coronavirus viruses their crown-like appearance. This glycoprotein mediates attachment of the virus particle and entry into |

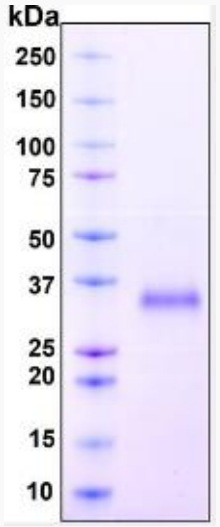
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| | the host cell. S protein is an important target for vaccine development, antibody therapies and diagnostic antigen-based tests. |
| **Form** | Liquid |
| **Molecular Mass** | Recombinant protein product has a calculated molecular mass of 25 kDa. Due to the abundant glycosylation, it migrates as approximately 30 kDa protein bands in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions. |
| **Endotoxin** | < 0.5 EU/μg of the protein as determined by the LAL method |
| **Purity** | > 90%, SDS-PAGE under reducing conditions and visualized by Coomassie blue staining |
| **Applications** | Functional Assay, Protein-protein Interaction, Post-translational Modifications, ELISA, EIA, Western Blotting, Dot Blotting, Immunoprecipitation, Protein Array, etc. |
| **Notes** | This product is furnished for LABORATORY RESEARCH USE ONLY.<br>Not for diagnostic or therapeutic use. |
| **Storage** | Upon arrival, the protein may be stored for 2 weeks at 4 centigrade. For long term storage, it is recommended to store at -20 centigrade or -80 centigrade in appropriate aliquots. Avoid repeated freeze-thaw cycles. |
| **Storage Buffer** | Supplied as a 0.2 um filtered solution in PBS (pH 7.4) |
| **Shipping** | Ice packs |

## GENE INFORMATION

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| **Gene Name** | S surface glycoprotein [ Severe acute respiratory syndrome coronavirus 2 ] |

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| **Official Symbol** | S |
| **Synonyms** | S; surface glycoprotein; structural protein; spike protein |
| **Gene ID** | 43740568 |
| **Protein Refseq** | YP_009724390 |
| **UniProt ID** | P0DTC2 |
| **SDS-PAGE** |  |



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