# Data Sheet (Cat.No.TMPK-00908)

TargetMol

## SARS Spike S1 Protein (hFc & Avi)

### General Information

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| Synonyms: | Spike protein S1;S1 protein;Spike,S1 protein;S glycoprotein Subunit1 |
| Protein Construction: | Ser14-Arg667 |
| Species: | SARS |
| Expression Host: | HEK293 Cells |
| Accession: | P59594 |
| Molecular Weight: | 100.6 kDa (predicted). Due to glycosylation, the protein migrates to 120-140 kDa based on Tris-Bis PAGE result. |

### QC Testing

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| Biological Activity: | Immobilized SARS Spike S1, hFc Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Human ACE2, His Tag with the EC50 of 0.21μg/ml determined by ELISA. |
| Purity: | > 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

The spike protein (S) of coronavirus (CoV) attaches the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) on S mediates this interaction.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

Reference

Belouzard S, et al. Activation Of The Sars Coronavirus Spike Protein Via Sequential Proteolytic Cleavage At Two Distinct Sites[J]. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106(14): 5871-5876.



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