Data Sheet (Cat.No.TMPK-00433)

TargetMol

SARS-COV-2 Spike S1 Protein (hFc & Avi), Biotinylated

General Information

Synonyms:	S1 protein;Spike,S1 protein;Spike protein S1;S glycoprotein Subunit1
Protein Construction:	Gln14-Arg683
Species:	SARS-CoV-2
Expression Host:	HEK293 Cells
Accession:	A0A6G7K2L4
Molecular Weight:	102.6 kDa (predicted). Due to glycosylation, the protein migrates to 130-140 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Biotinylated SARS-COV-2 Spike S1, hFc Tag at 2μg/ml (100μl/well) on the streptavidin precoated plate (5μg/ml). Dose response curve for Human ACE2, His Tag with the EC50 of 0.09μg/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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481