

37-1500: SARS-CoV Spike/S1 Protein (S1 Subunit, His Tag)(Discontinued)

Uniprot ID :	AAX16192.1
Alternative Name :	coronavirus s1 Protein, SARS; coronavirus s2 Protein, SARS; coronavirus spike Protein, SARS; cov spike Protein, SARS; ncov RBD Protein, SARS; ncov s1 Protein, SARS; ncov s2 Protein, SARS; ncov spike Protein, SARS; SARS; novel coronavirus s1 Protein, SARS; novel coronavirus s2 Protein, SARS; novel coronavirus spike Protein, SARS; SARS; S1 Protein, SARS; s2 Protein, SARS; SARS
Immunogen Information :	Predicted N Terminal : Ser 14

Description

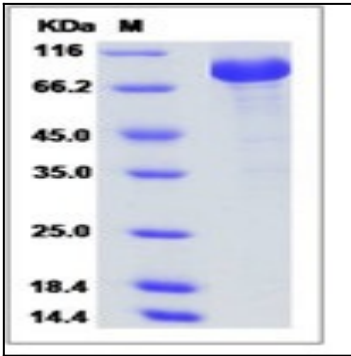
Source: Baculovirus-Insect Cells. The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate. A DNA sequence encoding the S1 subunit of SARS-CoV (isolate:WH20) spike (AAX16192.1) (Met1-Arg667) was expressed with a C-terminal polyhistidine tag.

Endotoxin : < 1.0 EU per µg of the protein as determined by the LAL method

The recombinant S1 subunit of SARS-CoV (isolate:WH20) spike comprises 665 amino acids and has a predicted molecular mass of 74.4 kDa. The apparent molecular mass of the protein is approximately 85.8 kDa in SDS-PAGE under reducing conditions.

Product Info

Amount :	CoV Spike/S1 Protein (S1 Subunit, His Tag)(Discontinued) / 50 µg
Purification :	> 90 % as determined by SDS-PAGE
Content :	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10 % glycerol, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Storage condition :	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.



SARS-CoV Spike/S1 Protein (S1 Subunit, His Tag)