# Recombinant SARS-CoV-2 S2 Protein (Fc Tag)

Catalog Number: PKSR030491



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Descri	4.0
LIACOPT	ntion
	747 (17)

Synonyms S2 protein;Spike glycoprotein Subunit2;S glycoprotein Subunit2;Spike protein

S2:COVID-19

SpeciesSARS-CoV-2Expression HostHEK293 CellsSequenceSer686-Gln1208AccessionQHD43416.1Calculated Molecular Weight84.1 kDaObserved molecular weight100-130 kDa

Tag C-Fc

### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

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

Storage Storage Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

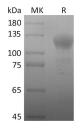
**Shipping** This product is provided as liquid. It is shipped at frozen temperature with blue

ice/gel packs. Upon receipt, store it immediately at < - 20°C.

Formulation Supplied as a 0.2 µm filtered solution of PBS, 5%Trehalose, 10 % glycerol, pH 7.4.

**Reconstitution** Not Applicable

#### Data



> 95 % as determined by reducing SDS-PAGE.

### **Background**

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 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 SARS-CoV-2 (COVID-19 coronavirus, 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

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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.

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