

# SARS-CoV-2 Spike Protein S1

## Cat. # CV2005

### **Background:**

Within the last two decades, SARS and MERS coronaviruses emerged as global health concerns causing severe acute respiratory syndromes. In December 2019, a novel coronavirus (SARS-CoV-2) was identified in Wuhan, Hubei province in China (1-3). The SARS-CoV-2 genome encodes several structural proteins including the Spike glycoprotein (S glycoprotein), which plays a crucial role in the infection of the host. The N-terminal part of the Spike protein (S1, residues 1-685) initiates the infection process by attaching the virus to host receptors (ACE2, CLEC4M/DC-SIGNR) located on the cell membrane (5-6). This interaction, which leads to the internalization of the virus into endosomes, is mediated by the receptor binding domain (residues 319-545). The Spike S1 Protein represents a valuable tool for drug discovery programs targeting SARS-CoV-2 infection.

S glycoprotein Alternate names:

#### **Product Information**

**Molecular Weight:** 74.9 kDa (residues 17-685)

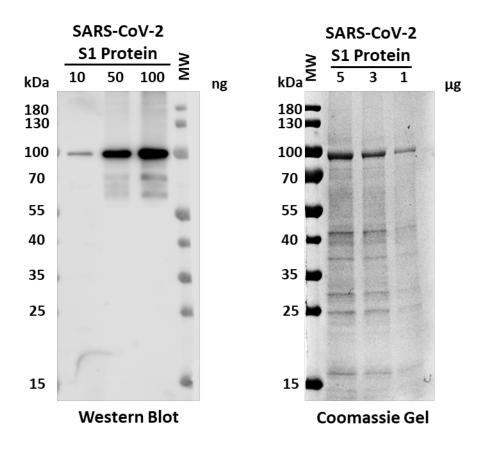
Quantity: 100 µg **Physical State:** Liquid

Species: SARS-CoV-2 His<sub>6</sub>-SUMO Tag:

**Activity:** 

Storage: -80° C. Avoid repeated freeze/thaw cycles.

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#### References

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- 3) Zhu N, Zhang D, Wang W, et al. A Novel Coronavirus from Patients with Pneumonia in China, 2019. N. Engl. J. Med. 2020;382(8):727-733.
- 4) Coutard B, Valle C, de Lamballerie X, et al. The spike glycoprotein of the new coronavirus 2019-nCoV contains a furin-like cleavage site absent in CoV of the same clade. Antiviral Res. 2020;176:104742.
- 5) Chan VSF, Chan KYK, Chen Y, et al. Homozygous L-SIGN (CLEC4M) plays a protective role in SARS coronavirus infection. Nat. Genet. 2006;38(1):38-46.
- Yan R, Zhang Y, Li Y, et al. Structural basis for the recognition of SARS-CoV-2 by full-length human ACE2. Science (80-.). 2020;367(6485):1444-1448.

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