

# SARS-CoV-2 (2019-nCoV) S-trimer Protein (Mammalian, C-6His)

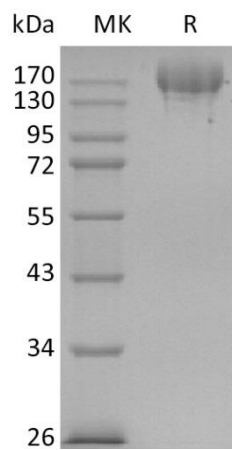
Cat# P0131- 1 mg

Storage at -20°C or below.

## INTFORMATION

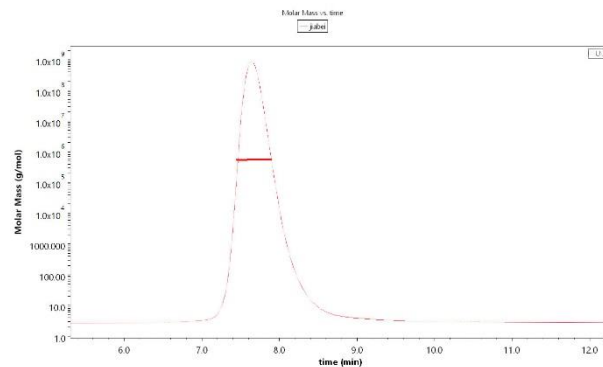
<b>Product Name</b>	SARS-CoV-2 (2019-nCoV) S-trimer Protein (Mammalian, C-6His)
<b>Product Type</b>	Recombinant Protein
<b>Cat NO.</b>	P0131 1 mg
<b>Size</b>	1 mg
<b>Description</b>	<p>Recombinant SARS-CoV-2 (2019-nCoV) S-trimer Protein (Mammalian, C-6His) is produced by mammalian expression system and the target gene encoding Cys15-Gln1208 is expressed with a 6His tag at the C-terminus.</p> <p>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. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. 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.</p>
<b>Species</b>	SARS-CoV-2 (2019-nCoV)
<b>Source</b>	SARS-CoV-2 (2019-nCoV), Sequence Cys15-Gln1208, C-terminal His Tag
<b>Appearance</b>	Liquid
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Purity</b>	>95% as determined by SDS-PAGE
<b>Storage</b>	Reconstituted protein solution should be stored at ≤ -20°C.
<b>Stability</b>	Samples are stable for up to six months from date of receipt at -20°C
<b>M.W.</b>	136.6 kDa
<b>Image</b>	

### SDS-PAGE



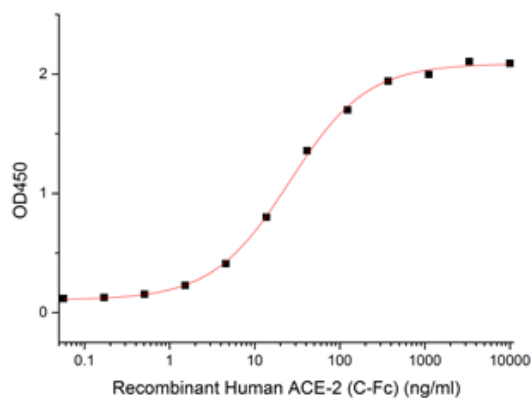
Greater than 95% as determined by reducing SDS-PAGE.

### SEC-MALS

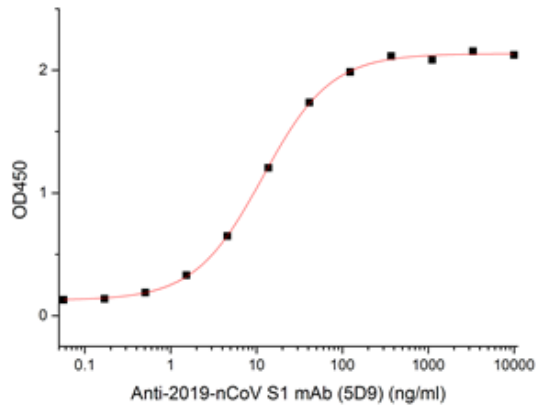


SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) molecular mass was tested by SEC-MALS around 550-670 kDa and the purity was more than 90%.

### Bioactivity-Elisa:

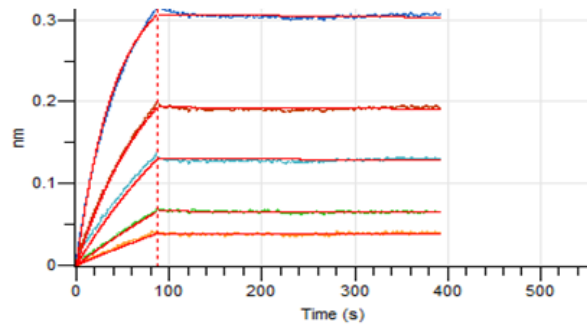


Immobilized SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) at 2 $\mu$ g/ml (100  $\mu$ l/well) can bind Human ACE-2 (C-Fc)(Cat#C05Y). The ED50 for this effect is 15-120 ng/ml.

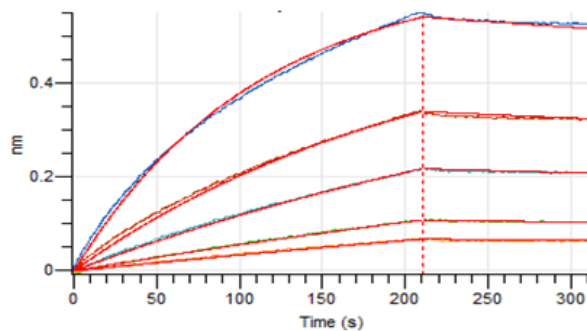


Immobilized SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) at  $2\mu\text{g/ml}$  ( $100\ \mu\text{l/well}$ ) can bind Anti-2019-nCoV S1 mAb (5D9)(Cat#NC025). The ED50 for this effect is 5-30 ng/ml.

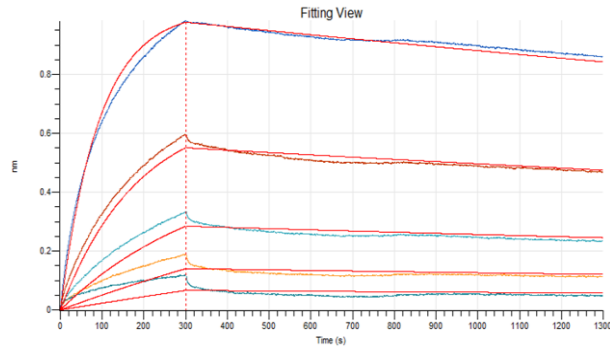
#### Bioactivity-BLI:



Loaded Human ACE-2-Fc on Protein A Biosensor, can bind SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) with an affinity constant of  $0.125\ \text{nM}$  as determined in BLI assay.



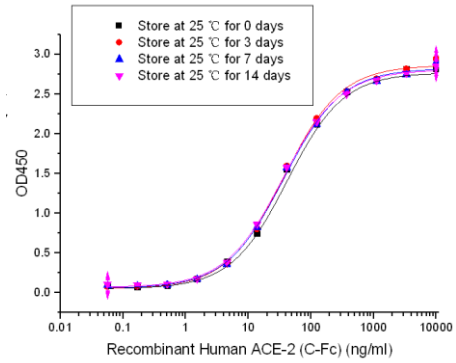
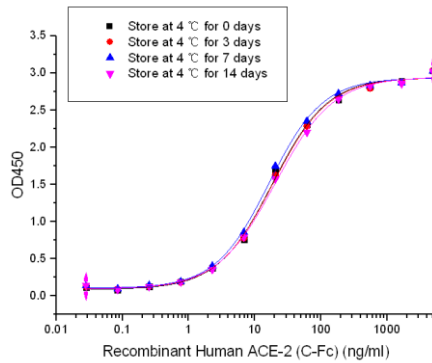
Loaded Anti-2019-nCoV S1 mAb on Protein A Biosensor, can bind SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) with an affinity constant of  $3.88\ \text{nM}$  as determined in BLI assay.



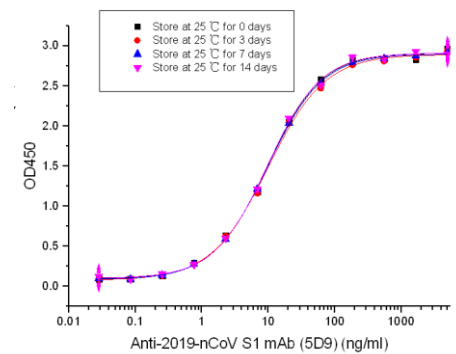
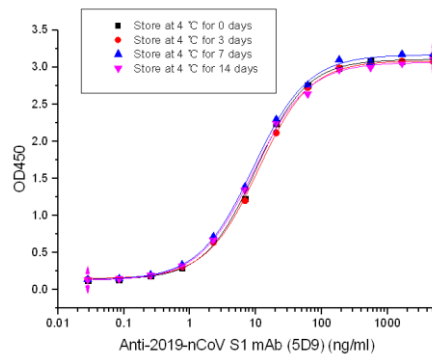
Loaded SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) on HIS1K Biosensor, can bind A an affinity constant of 1.11 nM as determined in BLI assay.

### Product stability:

#### Bind with Recombinant Human ACE-2 (C-Fc)

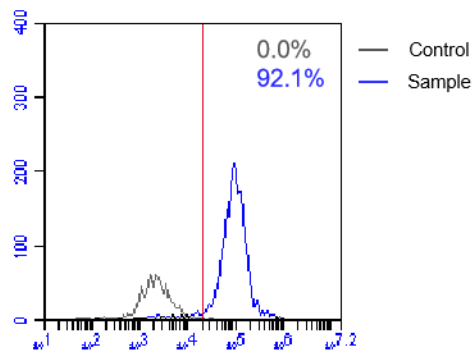


#### Bind with Anti-2019-nCoV S1 mAb (5D9)



Stability testing is performed in the product buffer to see whether different temperatures affect the a product bioactivity is no significant differences after storage for 14 days at 4 °C or 25 °C.

**Flow cytometry:**



SARS-CoV-2 (2019-nCoV) S-trimer Protein (C-6His)(Cat#P0131) can bind 293-ACE2 Overexpressed Cells for positive cell is 92.1%.

**PRODUCT USE LIMITATION**

These products are intended for research use only.