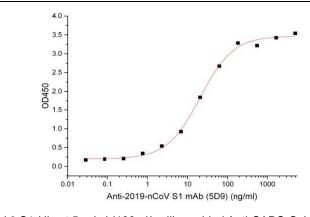
## S1 Protein (Mammalian, C-6His)

Catalog#:P00265 Derived from Human Cells

DESCRIPTION	Recombinant 2019-nCoV S1 Protein is produced by our Mammalian expression system with a 6*His tag at the C-terminus.  Uniprot: P0DTC2
Size	Gene ID: 43740568 76 kDa
FORMULATION	Lyophilized from a 0.2 µm filtered solution of PBS, PH 7.4.
SHIPPING	The product is shipped at -20°C temperature. Upon receipt, store it immediately at the temperature listed below.
STORAGE	Reconstituted protein solution can be stored at < -20°C for 1-2 years.
RECONSTITUTION	Reconstituted protein solution can be diluted with distilled PBS.  Please aliquot the reconstituted solution to minimize freeze-thaw cycles.  Application for immunogen, calibrator or standard.
QUALITY CONTROL	90% as determined by reducing SDS-PAGE.
AMINOACID	Recombinant 2019-nCoV S1 Protein is produced by our Mammalian expression system and the target gene encoding Val16-Arg685 is expressed with a 6His tag at the C-terminus.
Bioactivity	SARS-CoV-2 S1-His at 5µg/ml (100 µl/well) can bind Human ACE-2-Fc. The ED50 of Recombinant Human ACE-2-Fc is 58.3 ng/ml.



SARS-CoV-2 S1-His at  $5\mu g/ml$  (100  $\mu l/well$ ) can bind Anti-SARS-CoV-2 S1 mAb. The ED50 of Anti-SARS-CoV-2 S1 mAb is 20.6 ng/ml.

## **BACKGROUND**

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.