Recombinant 2019-nCoV S1 Protein (mFc Tag)(Active)

Catalog No: RPES0046 **Category**: Recombinant Protein

Bio-Activity:

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human ACE2 Protein (His Tag) (Cat#RPES0050) at 2μg/mL (100μL/well) can bind Recombinant 2019-nCoV S1 Protein (mFc Tag) (Cat#RPES0046), the EC50 of RPES0046 is 90-240 ng/mL.

Sequence Information

Species: Virus

Sequence: Val16-Arg685

Accession: YP_009724390.1

Tag: C-mFc

Product Information

Synonyms: S1 protein; 2019-nCoV S1 protein; coronavirus S1 Protein; cov S1 Protein

Source: HEK293 Cells

Purity: > 85% as determined by reducing SDS-PAGE.

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

Formulation: LyopHilized from sterile PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Background

Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2, DPP4, CEACAM etc.. 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.

Image