

Recombinant 2019-nCoV Spike Protein (RBD-SD1, mFc Tag)(Active)

Catalog No. PKSR030476

Description

Synonyms	2019-nCov RBD Protein; 2019-nCoV S RBD Protein
Species	Virus
Expression_host	Human Cells
Sequence	Arg319-Pro589
Accession	QHD43416.1
Mol_Mass	57 kDa
AP_Mol_Mass	60-80 kDa
Tag	C-mFC
Bio_activity	1.Immobilized Human ACE-2-Fc (Cat#PKSR030492) at 2µg/ml (100 µl/well) can bind Recombinant 2019-nCoV Spike Protein (RBD-SD1, mFc Tag) (Cat#PKSR030476), the ED50 for this effect is 5-20 ng/ml. 2.Immobilized SARS-COV-2 Spike S1 Monoclonal Antibody (Cat#E-AB-V1005) at 2µg/ml (100 µl/well) can bind Recombinant 2019-nCoV Spike Protein (RBD-SD1, mFc Tag)(Cat#PKSR030476), the ED50 for this effect is 5-20 ng/ml.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg as determined by the LAL method.
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, pH 7.4.
Reconstitution	Please refer to the printed manual for detailed information.

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.

SDS-PAGE

