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32-190003: Recombinant 2019-nCoV S Protein RBD-SD1 (C-mFC) (Active) (Discontinued)

Uniprot ID : QHD43416.1
Alternative Name : 2019-nCov RBD Protein; 2019-nCoV Spike RBD Protein.

Description

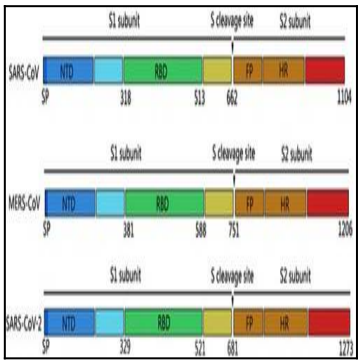
Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme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

Product Info

Amount : 50 µg / 500 µg
Purification : Greater than 95% as determined by reducing SDS-PAGE.
Content : Supplied as a 0.2 µM filtered solution of PBS, pH 7.4
Storage condition : Reconstituted protein solution should be stored at <-20°C.
Amino Acid : Expression Region: Recombinant 2019-nCoV S protein RBD Protein is produced by our Mammalian expression system and the target gene encoding Arg319-Pro589 is expressed with a mFC tag at the C-terminus.

Application Note

Calculated MW57kDa; Biological Activity: Immobilized Human ACE-2-Fc at 10µg/ml (100 µl/well) can bind 2019-nCoV S Protein RBD-SD1-mFc. The ED50 of 2019-nCoV S Protein RBD-SD1-mFc is 15.5 ng/ml.



Structural diagrams of spike glycoproteins of SARS-CoV, MERS-CoV, and SARS-CoV-2. All spike proteins of coronaviruses contain S1 subunit and S2 subunit, which were divided by the S cleavage sites. FP, fusion peptide; HR, heptad repeat 1 and heptad repeat 2; RBD, receptor-binding domain, contains core binding motif in the external subdomain; SP, signal peptide. Adapted from Composition and divergence of coronavirus spike proteins and host ACE2 receptors predict potential intermediate hosts of SARS-CoV-2. Liu Z, et al. J Med Virol. 2020 Feb 26. doi: 10.1002/jmv.25726.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.