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32-190055: SARS-CoV-2 Spike Protein S1 (RBD) (Recombinant) (His)

Application : Functional Assay
Reactivity : Human
Alternative Name : 2019-nCoV Spike Protein S1 (RBD); Spike Receptor Binding Domain

Description

Source :HEK 293 cells
Specific SARS-CoV-2 shares 79.5% sequence identity with SARS-CoV and is 96.2% identical at the genome level to the bat coronavirus BatCoV RaTG133, s µggesting it had originated in bats. The coronaviral genome encodes four major structural proteins: the Spike (S) protein, Nucleocapsid (N) protein, Membrane/Matrix (M) protein and the Envelope (E) protein. The SARS Envelope (E) protein contains a short palindromic transmembrane helical hairpin that seems to deform lipid bilayers, which may explain its role in viral budding and virion envelope morphogenesis. The SARS Membrane/Matrix (M) protein is one of the major structural viral proteins. It is an integral membrane protein involved in the budding of the viral particles and interacts with SARS Spike (S) protein and the Nucleocapsid (N) protein. The N protein contains two domains, both of them bind the virus RNA genome via different mechanisms. The CoV Spike (S) protein assembles as trimer and plays the most important role in viral attachment, fusion and entry. It is composed of a short intracellular tail, a transmembrane anchor and a large ectodomain that consists of a receptor binding S1 subunit (RBD domain) and a membrane-fusing S2 subunit. The S1 subunit contains a receptor binding domain (RBD), which binds to the cell surface receptor angiotensin-converting enzyme 2 (ACE2) present at the surface of epithelial cells. The SARS-CoV-2 Spike Protein S1 (RBD) (rec.) (His) is used as antigen in the Serological ELISA Kit to detect anti-SARS-CoV-2 Spike (RBD) antibodies in serum or plasma (see SARS-CoV-2 (Spike RBD) IgG Serological ELISA Kit; 90-7004).

Product Info

Amount :	50 µg
Purification :	>=95% (SDS-PAGE)
Content :	Reconstitute with 50µl endotoxin-free water.1mg/ml after reconstitution. Lyophilized. Contains PBS.
Storage condition :	Short Term Storage +4°C ; Long Term Storage-20°C ;After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles. For maximum product recovery after thawing, centrif µge the vial before opening the cap. Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Amino Acid :	Receptor-binding domain (RBD) of SARS-CoV-2 Spike protein S1 (aa 319-541)Â is fusedÂ at the C-terminus to a His-tag.

Application Note

MW :~35kDa (SDS-PAGE);
Biological Activity: Binds to anti-SARS-CoV-2 Spike (RBD) antibodies in serum or plasma.
Endotoxin Content <0.01EU/µg purified protein (LAL test).

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