

34-1136: Rabbit polyclonal antibody to SARS-CoV2 S-protein (ACE2 binding domain)

Clonality : Polyclonal

Application : ICC/IF, WB

Format : Purified

Description

This antibody was raised against a recombinant construct of the SARS-CoV-2 spike or S-protein which includes the entire region which interacts with ACE2. The specific binding to ACE2 is essential for viral internalization and infection. We designed this construct based on amino acids 308-541 in the S-protein sequence in Isolate Wuhan-Hu-1, complete genome. This is a defined globular domain recently shown to include all of the amino acids necessary for ACE2 binding. The construct was expressed in and purified from E. coli and includes an N-terminal His-tag and other vector derived sequence shown underlined below. Amino acids which interact directly with the ACE2 protein are printed in bold.

Product Info

Amount : 50 µL / 100 µL

Content : Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3

Storage condition : Store at 4°C for short term, for longer term at -20°C. Avoid freeze / thaw cycles.

Amino Acid : MHHHHHHSSG LVPRGSGMKE TAAAKFERQH MDSPDLGTDD DDKAMADIGS EFVEKGIYQT 60
SNFRVQPTES IVRFPNITNL CPFGEVFNAT RFASVYAWNR KRISNCVADY SVLYNSASFS 120
TFKCYGVSPST KLNDLCFTNV YADSFVIRGD EVRQIAPGQT GKIADYNYKL PDDFTGCVIA 180
WNSNNLDSKV GGNVNYLYRL FRKSNLKPFE RDISTEIQQA GSTPCNGVEG FNCYFPLQSY 240
GFQPTNGVGY QPYRVVLSF ELLHAPATVC GPKKSTNLVK NKCYNF 286 Number of amino
acids: 286 Molecular weight: 32074.01

Application Note

WB: 1:1,000-1:2,000. ICC/IF: 1:3,000-5,000

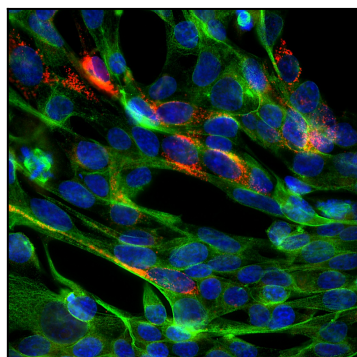


Fig 1 :Immunofluorescent analysis of HEK293 cells transfected with pCI-Neo-Mod vector (5) including DNA encoding the SARS-CoV2 S-protein ACE2 binding domain, amino acids 308-541 in the S-protein sequence in Wuhan-Hu-1, complete genome. This region was used as the immunogen for development of rabbit antibody RPCA-SARS-CoV2-bd. The antibody was used at a dilution 1:3,000, shown in red. Cells costained with mouse mAb to β-tubulin, dilution 1:5,000, in green. The blue is Hoechst staining of nuclear DNA. The SARS-CoV2-bd antibody cleanly reveals expression of the SARS-CoV2-bd protein only in transfected cells. The β-tubulin antibody produces strong staining of microtubules in the cytoplasm in both transfected and non-transfected cells.

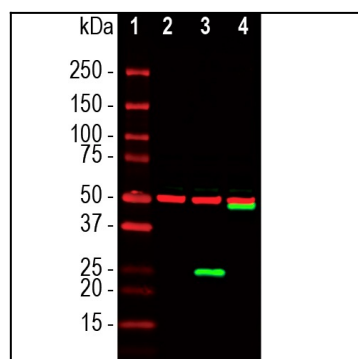


Fig 2 :Western blot analysis of HEK293 cell lysates using rabbit pAb to SARS-CoV2-bd protein, SARS-CoV-bd, dilution 1:2,000 in green: [1] protein standard, [2] non-transfected cells, [3] cells transfected with pCI-Neo-Mod vector containing the SARS-Cov-bd cDNA, and [4] cells transfected with pCI-Neo-GFP vector containing the SARS-CoV-bd cDNA. The band at 25kDa in lane 2 demonstrates expression of SARS-CoV-bd protein, and the band at about 50kDa in lane 3 corresponds to GFP-SARS-CoV-bd fusion protein. The same blot was simultaneously probed with mouse mAb to β -tubulin, dilution 1:5,000, in red, which reveals a single band at 50kDa in both transfected and non-transfected cells.