9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

34-1135: Mouse monoclonal antibody to SARS-CoV2 (ACE2 binding domain) (Clone:5G8)

Clonality :	Monoclonal
Clone Name :	5G8
Application :	ICC/IF,IHC,WB
Uniprot ID :	P0DTC2
Format :	Purified
Isotype :	IgG1
Immunogen Information :	Recombinant SARS-CoV2 S-Protein ACE2 binding domain expressed in and purified from E. coli.

Description

This antibody was raised against a recombinant construct of the SARS-CoV2 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 :	Shipped on ice. 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 TFKCYGVSPT KLNDLCFTNV YADSFVIRGD EVRQIAPGQT GKIADYNYKL PDDFTGCVIA 180 WNSNNLDSKV GGNYNYLYRL FRKSNLKPFE RDISTEIYQA GSTPCNGVEG FNCYFPLQSY 240 GFQPTNGVGY QPYRVVVLSF ELLHAPATVC GPKKSTNLVK NKCVNF 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

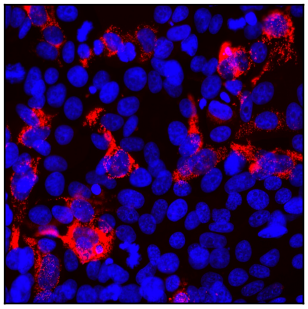

Fig 1: Immunofluorescent analysis of HEK293 cells transfected with pCI-Neo-Mod vector (5) including SARS-CoV2-bd cDNA and stained with mouse mAb to SARS-CoV2-bd, with dilution 1:1,000, in red. The blue is Hoechst staining of nuclear DNA. This antibody reveals expression of SARS-CoV2-bd protein only in transfected cells. DAPI reveals the nuclear DNA of both transfected and non-transfected cells.

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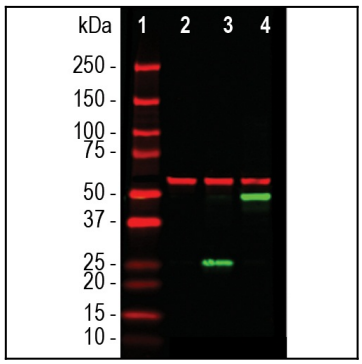

Fig 2 :-Western blot analysis of HEK293 cell lysates using mouse mAb to SARS-CoV2-bd protein, with dilution 1:3,000 in green: [1] protein standard, [2] non-transfected cells, [3] cells transfected with pCI-Neo-Mod containing the SARS-CoV2-bd cDNA, and [4] cells transfected with pCI-Neo-GFP vector expression construct containing containing the SARS-CoV2-bd cDNA. The band at 25kDa mark in the transfected cells demonstrates expression of SARS-CoV-bd protein, and the band at about 50kDa corresponds to a GFP-SARS-CoV2-bd fusion protein. The same blot was simultaneously probed with rabbit pAb to HSP60, RPCA-HSP60, dilution 1:5,000, in red, revealing a single band at 60kDa in both transfected and non-transfected cells.