

10-10032: Monoclonal Antibody to SARS-CoV-2 nucleocapsid Protein (Clone: ABM1F11.1E1)

Clonality :	Monoclonal
Clone Name :	ABM1F11.1E1
Application :	ELISA, WB
Reactivity :	Human
Gene :	N
Gene ID :	43740575
Uniprot ID :	P0DTC9
Format :	Purified
Isotype :	Mouse IgG1, Kappa
Immunogen Information :	Full length recombinant SARS-CoV-2 nucleocapsid Protein was used as the immunogen for this antibody.

Description

The structural nucleocapsid (N) protein of nCoV/SARS-CoV-2/COVID-19 is a predicted 46 kDa phosphoprotein having 419 amino acid residues. A short Serine rich stretch and a recognized nuclear localization signal are the unique features of the nucleocapsid protein of nCoV/SARS-CoV-2/COVID-19, which seems to have a little homology with the proteins of other members of this large corona virus family. These features also suggest the involvement of nucleocapsid protein of nCoV/SARS-CoV-2/COVID-19 in different stages of viral lifecycle. The protein has multifaceted activities including packing of the nCoV/SARS-CoV-2/COVID-19 viral genome into a helical ribonucleocapsid (RNP) and playing an important role in viral self-assembly causing nCoV/SARS-CoV-2/COVID-19. The nucleocapsid protein of nCoV/SARS-CoV-2/COVID-19 also forms dimer in the cell by self-association with the help of interactive C terminal domain.

“This product was developed using BIRAC financial assistance project reference no. BT/COVID0062/02/20”

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Recommended dilutions: WB: 0.1-1 µg/ml, ELISA: 1 µg/ml. However, this need to be optimized based on the research applications.

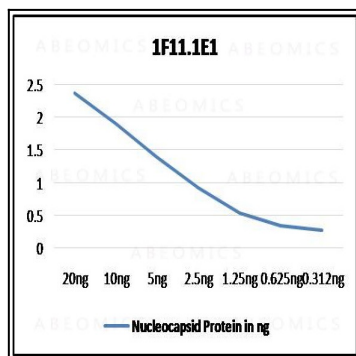


Figure-1: An indirect ELISA is carried out by coating nucleocapsid protein in serial dilution from 20 ng to 0.312 ng and using 100 ng of purified monoclonal antibodies 1F11.1E1. Peroxidase conjugated Goat-Anti mouse antibody was used at 1:5000 dilution.

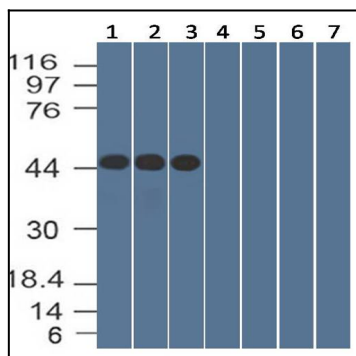


Figure-2: Western Blot analysis: The purified antibodies 1F11.1E1 was tested on Nucleocapsid Recombinant protein at different concentrations, 0.1 (lane 1), 0.5 (lane 2), and 1.0 μ g/ml (lane 3), (4) RBD protein, (5)unrelated protein 1, (6) unrelated protein 2, (7) unrelated protein 3, to detect the specific binding. 25 ng of proteins was loaded per lane.

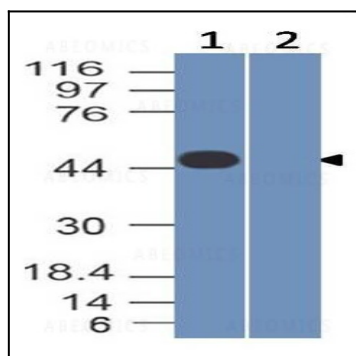


Figure-3: Western Blot analysis of SARS-CoV-2 Nucleocapsid Antibody: Anti- SARS-CoV-2 Nucleocapsid Antibody (Clone: ABM1F11.1E1) was used at 2 μ g/ml on (1) SARS-CoV-2 virus infected Vero Cell lysate and (2) Mock infected lysate.