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# 10-10035: Monoclonal Antibody to SARS-CoV-2 nucleocapsid (Clone: ABM4H11.1C12)

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|---|---|
| **Clonality :** | Monoclonal |
| **Clone Name :** | ABM4H11.1C12 |
| **Application :** | ELISA,WB |
| **Gene :** | N |
| **Gene ID :** | 43740575 |
| **Uniprot ID :** | P0DTC9 |
| **Format :** | Purified |
| **Isotype :** | Mouse IgG2b, 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.

## Product Info

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|---|---|
| **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.

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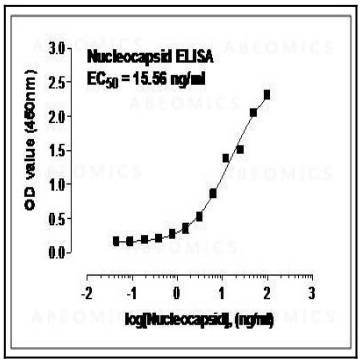


Figure-1: The Sandwich ELISA was carried out by coating the 96 well plate with 200 ng/well of ABM4H11.1C12 (Cat#10-10035) monoclonal antibody. The nucleocapsid protein (21-1003) was serially diluted from 10 ng to 0.0004ng in triplicates across rows. The 11-2004 polyclonal antibody (200 ng/well ) was used as detection antibody. Goat Anti-rabbit HRP was used as secondary antibody.

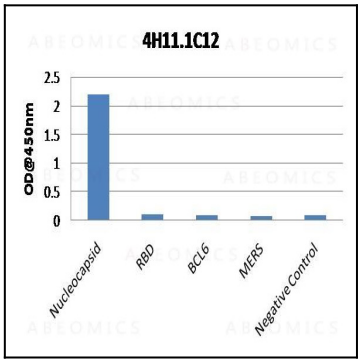


Figure-2: Anti-nucleocapsid monoclonal Antibodies (4H11.1C12) were screened against different proteins to evaluate the specificity of the antibodies.

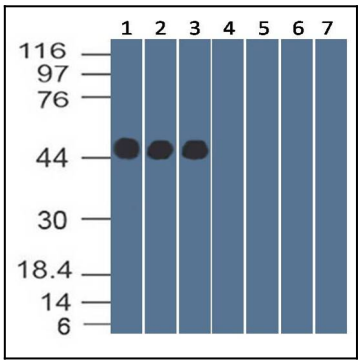


Figure-3: Western Blot analysis: The purified antibodies 4H11.1C12 was tested on Nucleocapsid Recombinant protein at different concentrations, 1 (lane 1), 0.5 (lane 2), and 0.1 Î¼g/ml (lane 3), (4) RBD protein, (5) unrelated protein 1, (6) unrelated protein 2, (7) unrelated protein 3, to detect the specific binding. 25 ng of proteins was loaded per lane.

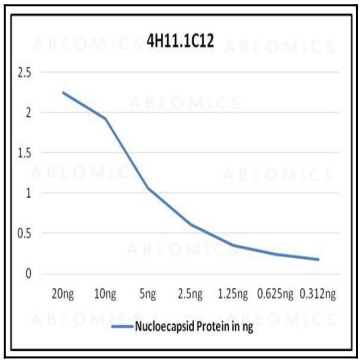


Figure-4: An indirect ELISA is carried out by coating nucleocapsid protein in serial dilution from 20 ng to 0.312 ng and using 100 ng of purified monoclonal antibodies 4H11.1C12. Peroxidase conjugated Goat-Anti mouse antibody was used at 1:5000 dilution.

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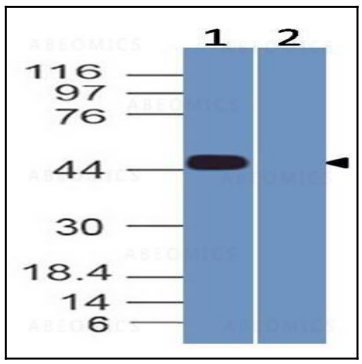


Figure-5: Western Blot analysis of SARS-CoV-2 Nucleocapsid Antibody: Anti- SARS-CoV-2 Nucleocapsid Antibody (Clone: ABM4H11.1C12) was used at 4 µg/ml on (1) SARS-CoV-2 virus infected Vero Cell lysates and (2) Mock infected lysates.

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