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Datasheet for ABIN6953060

Recombinant anti-SARS-CoV-2 Nucleocapsid antibody

1 Publication

Overview

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| Quantity: | 200 µg |
| Target: | SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N) |
| Reactivity: | SARS Coronavirus-2 (SARS-CoV-2), SARS Coronavirus (SARS-CoV) |
| Host: | Human |
| Antibody Type: | Recombinant Antibody |
| Clonality: | Monoclonal |
| Application: | ELISA, Immunofluorescence (IF) |

Product Details

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| Immunogen: | <p>The original antibody was generated by cloning the variable regions of the scFvs selected from phage display libraries into separate vectors for IgG1 heavy-chain and light-chain expression. The harvested supernatants were then purified on protein A columns. The original antigen was the whole irradiated virion.</p> |
| Clone: | CR3009 (03-009) |
| Isotype: | IgG1 kappa |
| Specificity: | <p>This antibody recognizes and binds the non-linear/conformational epitope of the N protein of SARS CoV and also binds the SARS CoV2 nucleoprotein.</p> |
| Characteristics: | <p>OriginalSpeciesName: Human</p> <p>OriginalFormat: IgG1</p> |
| Purification: | Protein A affinity purified |

Target Details

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| Target: | SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N) |
| Alternative Name: | SARS-CoV-2 Nucleocapsid Protein (SARS-CoV-2 N Products) |
| Target Type: | Viral Protein |
| Background: | NP, NC, Protein N, Nucleocapsid protein, SARS-CoV Protein N, SARS-CoV Nucleocapsid protein, SARS Coronavirus, SARS-CoV-2, SARS CoV 2, 2019-nCoV |
| UniProt: | P0DTC9 , P59595 |

Application Details

Application Notes: This antibody is recommended for detection of SARS CoV2 protein N (nucleoprotein). This antibody binds both the nucleocapsid protein of the SARS-CoV and SARS CoV-2 (2019-nCoV). Initial characterization of the antibody for binding to 2019-nCoV was done using ELISA. This antibody shows potential to be used for development of diagnostic assays. Various isotype versions of the antibody namely human IgG1, IgG3, IgM, IgA and the less common IgG2 and IgG4 are available for the investigation of their role in response to SARS CoV2. Competitive ELISA of this antibody with CR3018 suggests that both these antibodies bind different epitopes of the N protein of SARS CoV. Thus, a combination of these two antibodies is suggested for virus capture assays. Immunofluorescence staining was used to demonstrate binding of CR3009 to SARS-CoV infected Vero cells.

Competitive ELISA of both anti-nucleocapsid antibodies suggests that they bind different, non-overlapping epitopes of the N protein of SARS-CoV. Thus, a combination of these two antibodies is suggested for virus capture assays. Clone CR3018 binds the amino acid residues between 11-19 of the N protein of SARS-CoV, while clone CR3009 binds a non-linear/conformational epitope of the N protein of SARS-CoV, both of which are sufficiently conserved to permit binding of these antibodies to SARS-CoV-2

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| Restrictions: | For Research Use only |
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Handling

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| Format: | Liquid |
| Concentration: | 1 mg/mL |
| Buffer: | PBS with 0.02 % Proclin 300. |
| Preservative: | ProClin |

Handling

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| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. |

Publications

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| Product cited in: | <p>Liu, Ge, Dou, Guo, Liu, Zhou, Wei, Qian, Huang, Xu, Jia, Dang, Li, Tang: "Protein Inhibitor of Activated STAT 1 (PIAS1) Protects Against Obesity-Induced Insulin Resistance by Inhibiting Inflammation Cascade in Adipose Tissue." in: Diabetes, Vol. 64, Issue 12, pp. 4061-74, (2015) (PubMed).</p> <p>Berger, McClellan, Vistisen, Hazlett: "HIF-1? is essential for effective PMN bacterial killing, antimicrobial peptide production and apoptosis in Pseudomonas aeruginosa keratitis." in: PLoS pathogens, Vol. 9, Issue 7, pp. e1003457, (2013) (PubMed).</p> |
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