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Polyclonal Antibody to SARS N - Purified

Alternate names: 9a, NC, Nucleocapsid protein, Protein N, SARS-CoV N, Severe acute respiratory syndrome coronavirus Nucleoprotein

Catalog No.: AP09151PU-N

Quantity: 0.5 mg

Concentration: 5.0 mg/ml (by UV absorbance at 280 nm)

Background: The coronavirus nucleocapsid protein is the major structural component of virions that associates with genomic RNA to form a long, flexible, helical nucleocapsid. Sequence comparison of the N genes of five strains of the coronavirus mouse hepatitis virus suggests a three-domain structure for the nucleocapsid protein. The nucleocapsid protein may be associated with cellular membranes where it participates in viral RNA synthesis and virus budding.

Uniprot ID: P59595

NCBI: 227859

Host / Isotype: Rabbit / IgG

Immunogen: Recombinant protein corresponding to full length SARS Coronavirus Nucleocapsid protein

Format:
State: Lyophilized
Purification: Affinity chromatography on Protein A
Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide
Reconstitution: Restore in 0.1 ml of deionized water or equivalent.

Applications:
ELISA: 1/10000 - 1/50000.
Western Blot: 1/2000 - 1/10000.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody is directed against SARS Coronavirus Nucleocapsid (N) protein.

Storage:
Prior to reconstitution store at 2-8°C.
Following reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General References:
1. Zuo, X., et al. (2005). Expression and purification of SARS Coronavirus Proteins using SUMO Fusions. Protein Expres Purif 42: 100-110).
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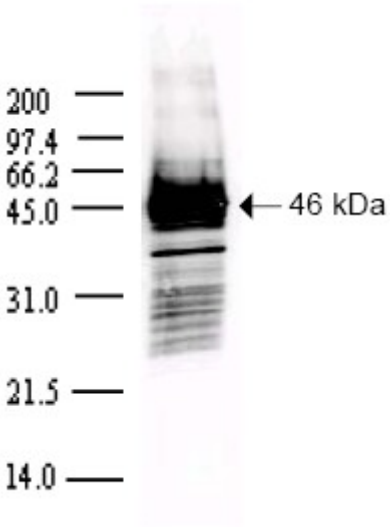
3. Malakhov, M. P., et al. (2004). SUMO fusion and SUMO-specific protease for efficient expression and purification of proteins. J Struct Funct Genomics 5(1-2): 75-86.

4. Butt, T. R. et al. (2005). SUMO fusion technology for difficult-to-express proteins. Protein Expres Purif (In Press).
5. Marra, M.A., et al. (2003). The genome sequence of the SARS-associated coronavirus. Science 300(5624): 1399-1404.
6. Surjit, M. et al. (2004). The nucleocapsid protein of the SARS coronavirus is capable of self-association through a C-terminal 209 amino acid interaction domain. Biochem. Biophys. Res. Commun. 317(4): 1030-1036.
7. Lin Y. et al. (2003). Identification an epitope of SARS-coronavirus nucleocapsid protein. Cell Research 13(3): 141-145.
8. Narayanan, K., et al. 2000). Characterization of the coronavirus M protein and nucleocapsid interaction in infected cells. J. Virol. 74(17): 8127-8134.
9. Xu, X. et al. (2003). Molecular model of SARS coronavirus polymerase: implications for biochemical functions and drug design. Nucleic Acids Res. 31(24): 7117-7130.
10. Ksiazek, T.G.., et. al. (2003). A novel coronavirus associated with severe acute respiratory syndrome. N. Engl. J. Med. 348(20): 1953-1966.
11. Rota, P.A. et al. (2003). Characterization of a novel coronavirus associated with severe acute respiratory syndrome. Science 300(5624):1394-1399.
12. Muller, S. et al. (2001). SUMO, ubiquitins mysterious cousin. Nat. Rev. Mol. Cell Biol. 2(3) 202-210.
13. Melchior, F. (2000). SUMO-nonclassical ubiquitin. Annu. Rev. Cell Dev. Biol. 16: 591-626.

Pictures:



Western blot using Protein A Purified anti-SARS CoV Nucleocapsid (N) protein antibody shows detection of a 46-kDa band corresponding to the protein. Approx. 100 ng of protein was loaded for SDS-PAGE and transferred onto nitrocellulose. The blot was incubated with a 1:5,000 dilution of the antibody at room temperature for 1 h followed by detection using IRDye(TM)800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:10,000. The fluorescence image was captured using the Odyssey(R) Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.