Monoclonal Anti-SARS Coronavirus/SARS-Related Coronavirus 2 Nucleocapsid Protein (produced *in vitro*)

Catalog No. NR-53791
Sino Biological Catalog No. 40143-R001

For research use only. Not for use in humans.

Contributor and Manufacturer:
Sino Biological, Wayne, Pennsylvania, USA

Product Description:
Antibody Class: IgG
Clone: 001
NR-53791 is a recombinant monoclonal rabbit antibody, prepared against the severe acute respiratory syndrome coronavirus (SARS-CoV) nucleocapsid (N) protein (Sino Biological 40143-V08B), that was expressed from HEK293 cells and purified.[1]

Material Provided:
Each vial of NR-53791 contains approximately 50 µL of monoclonal antibody in phosphate buffered saline (PBS). The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-53791 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C to -80°C immediately upon arrival. NR-53791 can be stored at 2°C to 8°C for one month without detectable loss of activity. Freeze-thaw cycles should be avoided.

Functional Activity:
NR-53791 is specific to the SARS-CoV N protein as shown in ELISA and western blot analysis (Figure 1), with cross reactivity to the N protein from SARS-CoV-2 (BEI Resources NR-53797; Sino Biological 40588-V08B). No cross reactivity was observed in ELISA with N proteins from MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-HKU1 (isolate N5) or HCoV-OC43. The biological activity of NR-53791 was measured by its binding ability using biosensor analysis (Figure 2), in which biotinylated recombinant SARS-CoV-2 N protein (His tag) (Sino Biological 40588-V08B-B) can bind NR-53791; the affinity constant is 0.02 nM.[1]

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-SARS Coronavirus/SARS-Related Coronavirus 2 Nucleocapsid Protein (produced *in vitro*), NR-53791."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:
1. Lu, Z., Personal Communication.

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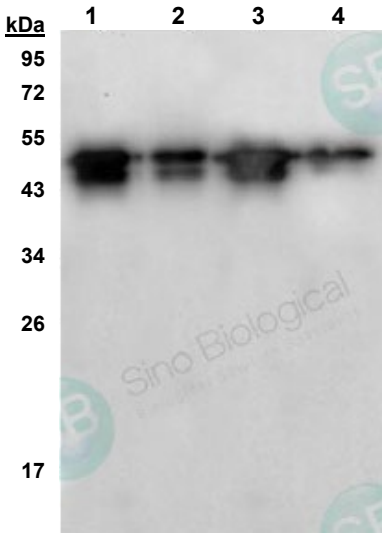
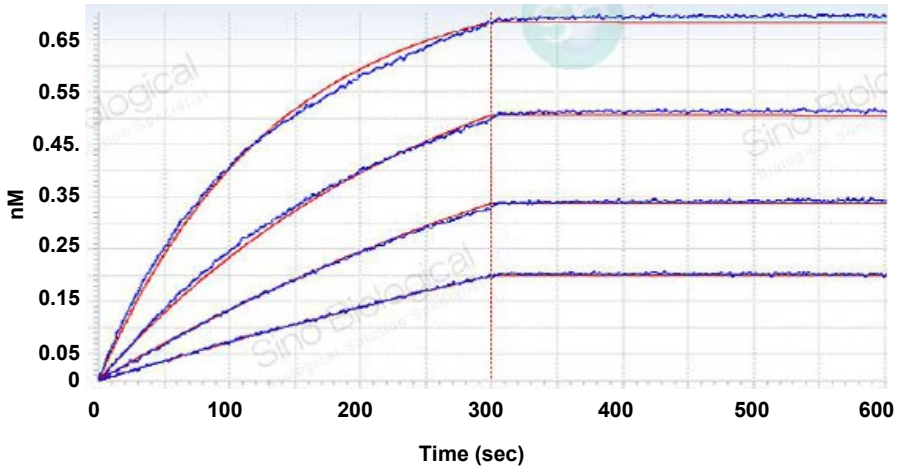
Figure 1: Representative Anti-SARS-CoV Western Blot



Lane 1: SARS-CoV N protein (30 ng)
Lane 2: SARS-CoV N protein (5 ng)
Lane 3: SARS-CoV-2 N protein (30 ng)
Lane 4: SARS-CoV-2 N protein (5 ng)

Figure 2: Representative Biosensor Analysis



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