

SUPPORTING INFECTIOUS DISEASE RESEARCH

# **Product Information Sheet for NR-53789**

Monoclonal Anti-SARS Coronavirus/ SARS-Related Coronavirus 2 Spike Glycoprotein Receptor Binding Domain (RBD), Chimeric Antibody (produced *in vitro*)

Catalog No. NR-53789 Sino Biological Catalog No. 40150-D001

For research use only. Not for use in humans.

## **Contributor and Manufacturer:**

Sino Biological, Wayne, Pennsylvania, USA

## **Product Description:**

Antibody Class: IgG1k

Clone: D001

Chimeric monoclonal antibody prepared against the severe acute respiratory syndrome coronavirus (SARS-CoV) spike (S) glycoprotein receptor binding domain (RBD) was produced using recombinant antibody technology. The variable region was obtained from mice immunized with purified recombinant SARS-CoV spike RBD protein (Sino Biological 40150-V08B2) to produce the variable region, which was combined with constant domains of the human IgG1 molecule.<sup>1</sup>

## **Material Provided:**

Each vial of NR-53789 contains approximately 50  $\mu$ L of purified monoclonal antibody in phosphate buffered saline (PBS). The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

### Packaging/Storage:

NR-53789 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-53789 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-53789 is specific to the SARS-CoV spike RBD protein and shows cross reactivity in ELISA with the SARS-CoV spike S1 protein, the SARS-CoV-2 spike RBD protein and the SARS-CoV-2 spike S1 protein, with no cross reactivity with the spike S1 proteins from MERS-CoV, HCoV-HKU1 (isolates N1 and N5), HCoV-NL63 or HCoV-229E, or the HCoV-OC43 spike S1 + S2 ectodomain (ECD) protein. The biological activity of NR-53789 was measured by its binding ability using biosensor analysis (Figure 1), in which immobilized recombinant SARS-CoV-2 spike RBD protein (His tag) (Sino Biological 40592-V08B-B) can bind NR-53789; the affinity constant is 0.12 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 Spike Glycoprotein Receptor Binding Domain (RBD), Chimeric Antibody (produced *in vitro*), NR-53789."

## **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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

#### **Disclaimers:**

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

## **Use Restrictions:**

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

#### References:

- 1. Lu, Z., Personal Communication.
- Shen, S., T. H. P. Tan and Y.-J. Tan. "Expression, Glysosylation, and Modification of the Spike (S) Glycoprotein of SARS CoV." <u>Methods Mol. Biol.</u> 379 (2007): 127-135. PubMed: 17502675.

BEI Resources www.beiresources.org E-mail: contact@beiresources.org

Tel: 800-359-7370 Fax: 703-365-2898



SUPPORTING INFECTIOUS DISEASE RESEARCH

# **Product Information Sheet for NR-53789**

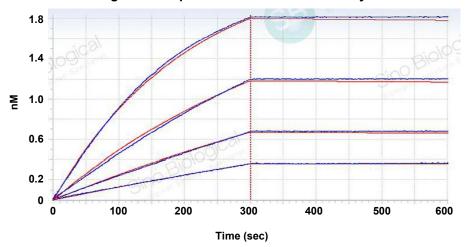
 Du, L., et al. "The Spike Protein of SARS-CoV – A Target for Vaccine and Therapeutic Development." <u>Nat. Rev.</u> Microbiol. 7 (2009): 226-236. PubMed: 19198616.

4. Xiao, S. and D. S. Dimitrov. "The SARS-CoV S Glycoprotein." Cell. Mol. Life Sci. 61 (2004): 2428-2430. PubMed: 15526150.

ATCC® is a trademark of the American Type Culture Collection.



Figure 1: Representative Biosensor Analysis



BEI Resources www.beiresources.org E-mail: contact@beiresources.org

Tel: 800-359-7370 Fax: 703-365-2898