Product Information Sheet for NR-56488

Monoclonal Anti-SARS-Related Coronavirus 2 Spike Glycoprotein, Clone 1-3D7 (produced *in vitro*)

Catalog No. NR-56488

This reagent is the property of the U.S. Government.

For research use only. Not for use in humans.

Contributor and Manufacturer:

Jason M. Goldstein, Ph.D., Immunodiagnostics Development Team Lead, Reagent and Diagnostic Services Branch (RDSB), Division of Scientific Resources (DSR), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, USA, and Professor M. G. Finn, Department of Chemistry and Biochemistry, Georgia Tech Research Corporation, Atlanta, Georgia, USA

Product Description:

Antibody Class: IgG1κ
Monoclonal antibody prepared against the severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2) spike (S) glycoprotein was purified from clone 1-3D7 hybridoma supernatant by protein G affinity chromatography. The B cell hybridoma was generated by the fusion of Sp2/mIL-6 mouse myeloma cells with splenocytes from BALB/c mice immunized with mouse IgG1 Fc domain-tagged receptor binding domain (RBD) protein (residues 319 to 541).[1,2]

Material Provided:

Each vial of NR-56488 contains approximately 100 µL of purified monoclonal antibody in phosphate buffered saline (PBS). The concentration, expressed as milligrams per milliliter, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-56488 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-56488 is a non-neutralizing antibody that targets the S glycoprotein of SARS-CoV-2.[1,2] It can bind to mutations N501Y, Y453F, E484Q, K417N and L452R, equivalent to WT Spike RBD, and can stain infected lung tissue for the virus.[1]

NR-56488 can be used for applications such as western blot, ELISA and immunohistochemistry assays. It binds to both native and denatured spike protein.[1]

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-SARS-Related Coronavirus 2 Spike Glycoprotein, Clone 1-3D7 (produced *in vitro*), NR-56488."

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:

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NR-56488 is claimed in International Patent Application No. PCT/US2021/040836 and the continuations, continuations-in-part, re-issues, and foreign counterparts thereof.[3] To obtain a license for commercial use and for additional commercialization or licensing information, please contact Kevin Brand, CDC (yfb0@cdc.gov).

References:

1. Goldstein, J. M., Personal Communication.
2. Chapman, A. P., et al. "Rapid Development of Neutralizing and Diagnostic SARS-COV-2 Mouse Monoclonal Antibodies." Sci. Rep. 11 (2021): 9682. PubMed: 33958613.

BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

3. Finn, M. G., et al. "Compositions and Methods for the Diagnosis and Treatment of SARS-COV-2 Virus Infection." (2021): U.S. Patent Pending WO2022011110.

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E-mail: contact@beiresources.org
Tel: 800-359-7370
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