Product Information Sheet for NR-56805

Monoclonal Anti-SARS-Related Coronavirus 2 Spike Glycoprotein, Clone 6-3B1 (produced *in vitro*)

Catalog No. NR-56805

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

For research use only. Not for use in humans.

Contributor and Manufacturer:

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Product Description:

Antibody Class: IgG1κ
Monoclonal antibody prepared against the severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2) spike (S) glycoprotein receptor-binding domain (RBD) was purified from clone 6-3B1 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 RBD protein (residues 455 to 470).[1,2]

Material Provided:

Each vial of NR-56805 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-56805 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-56805 is a neutralizing antibody that targets the RBD of the S glycoprotein of SARS-CoV-2.[1,2] It can bind to mutations N501Y, Y453F, E484K, K417N, L452R, E484Q and T478K, equivalent to WT Spike RBD.[1] NR-56805 neutralizes all variants (Omicron B.1.1.529, BA.1, BA.2, BA.3, Alpha B.1.1.7, Beta B.1.351, Gamma P.1, Delta B.1.617.2, B.1.617/1/3 and B.1.429 + E484K/Q), equivalent to WT/D614G.[1]

NR-56805 is functional in western blot, immunoprecipitation, flow cytometry, ELISA and neutralization assays. It binds to denatured Spike protein on immunoblot.[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 6-3B1 (produced *in vitro*), NR-56805."

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.

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NR-56805 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).

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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.
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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