

Monoclonal Anti-SARS-Related Coronavirus 2 Spike Glycoprotein Receptor Binding Domain (RBD), Native Antigen, Clone 58.2.2 (produced *in vitro*)

Catalog No. NR-58914

For research use only. Not for use in humans.

Contributor and Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgG1κ

Mouse monoclonal antibody against the severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2) Wuhan-Hu-1 spike glycoprotein receptor binding domain (RBD) was purified from hybridoma clone 58.2.2 culture supernatant by protein G affinity chromatography (Figure 1). The B cell hybridoma was generated by the fusion of Sp2/0-Ag14 mouse myeloma cells with splenocytes from BALB/c mice immunized with recombinant purified native RBD antigen and subsequent clonal selection. The recombinant antigen was produced *in vitro* by transfecting 293F cells with the RBD expression vector (BEI Resources [NR-52309](#)).

Material Provided:

Each vial of NR-58914 contains approximately 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-58914 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-58914 is specific to the SARS-CoV-2 RBD protein and shows cross reactivity with SARS-CoV-2 spike-D614G and the SARS-CoV-1 spike protein (BEI Resources [NR-623](#)) but not the MERS-Cov spike protein (BEI Resources [NR-53591](#)). NR-58914 has a relatively high affinity to the SARS-CoV-2 RBD and SARS-CoV-2-spike-D614G proteins. Neutralization capabilities of this antibody were measured through the c-Pass and pseudo-typed SARS-CoV S lentiviral particle-based assay, which resulted in IC50 values of 9.614 ng/mL and 235.4 ng/mL, respectively.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-SARS-Related Coronavirus 2 Spike Glycoprotein Receptor Binding Domain (RBD), Native Antigen, Clone 58.2.2 (produced *in vitro*) NR-58914."

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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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Figure 1: Representative SDS-PAGE

