

Data Sheet

Spike S1 Neutralizing Antibody SARS-CoV-2 (Clone: 414-2)

SARS-CoV-2, Monoclonal Catalog #: 100792 Lot #: 200618 Conc.: 1.0 mg/ml

Host Species | Isotype: Human | IgG1

Formulated in: 140 mM HEPES, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, and 30% glycerol.

<u>Stability</u>: Stable for at least 12 months at -20°C. Avoid freeze/thaw cycles.

References:

- 1. Zhou P., *et al., Nature.* 2020; **579:** 270-289.
- Xiao X., et al., Cell Mol Life Sci. 2004; 61(19-20): 2428-2430.

Description: Recombinant human monoclonal (clone 414-2) antibody recognizing the SARS-CoV-2 Spike S1 RBD glycoprotein. This antibody cross-reacts with the Spike protein from the SARS-CoV virus. Molecular Weight: 141 kDa (full length S1 protein).

Purification: Protein A Chromatography.

Background: This antibody was derived from COVID-19 patients who have cleared the virus. Patient serum IgG was sequenced and expressed as full-length IgG1 with human immunoglobulin heavy and light chains in mammalian 293 cells.

<u>Application:</u> ELISA and neutralization assays.

Quality Assurance



Fig.1 SARS-CoV-2 Spike RBD protein was coated onto microtiter plates at 0.5 µg/mL and then incubated with a dilution series of Spike S1 Neutralizing Antibody SARS-CoV-2 (Clone: 414-2). Bound antibodies were detected with anti-human IgG conjugated to horseradish peroxidase (HRP) followed by incubation with HRP Substrate and then measuring the resulting absorbance at 450 nm.

Log (Clone: 414-2 (BPS Bioscience #100792)), nM

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Log (Clone: 414-2 (BPS Bioscience #100792)), nM

Fig.2 Viral neutralization assays were performed with pseudotyped virus carrying a luciferase reporter gene and bearing the SARS-CoV-2 S1 spike glycoprotein. A549 lung epithelial target cells expressing the ACE2 receptor were incubated with virus and a graded dose of Spike S1 Neutralizing Antibody SARS-CoV-2 (Clone: 414-2) Luciferase signal, indicative of cellular infection and viral gene expression, was measured. Viral neutralization by SARS-CoV-2 antibodies inhibits viral entry and, by extension, virus associated luciferase signal in manner proportional to antibody dose

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