6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Data Sheet

Spike S1 Neutralizing Antibody (SARS-CoV-2) (Clone: 414-1)

SARS-CoV-2, Monoclonal
Catalog #: 100793
Lot #: 200617 **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.

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

References:

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

Description: Recombinant human monoclonal (clone 414-1) 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.

Application: ELISA and neutralization assays.

Quality Assurance

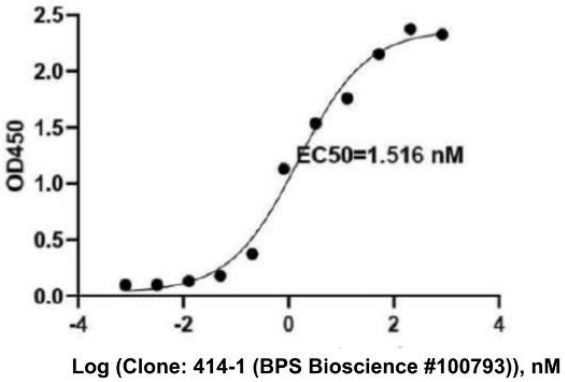

Fig.1 SARS-CoV-2 Spike RBD protein was coated onto microtiter plates at 0.5 µg/mL and then incubated with a dilution series of Spike S1 Neutralizing Antibody (SARS-CoV-2) (Clone: 414-1). Bound antibodies were detected with anti-human IgG conjugated to horseradish peroxidase (HRP) followed by incubation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

6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

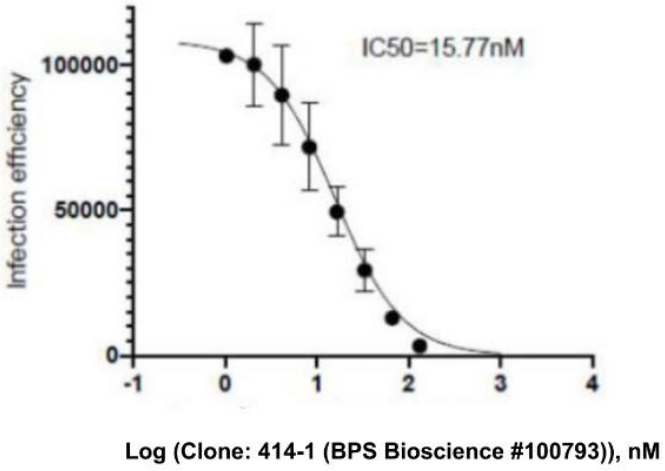

Fig.2 Viral neutralization assays were performed with pseudotyped virus carrying a luciferase reporter gene and bearing the SARS-CoV-2 S1 spike glycoprotein. A549 lung epithelial target cells expressing the ACE2 receptor were incubated with virus and a graded dose of Spike S1 Neutralizing Antibody (SARS-CoV-2) (Clone: 414-1) 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