

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, B.1.1.529 BA.2 Lineage (Omicron Variant) with C-Terminal Histidine and Avi Tags, Recombinant from HEK293F Cells

Catalog No. NR-56548

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

Product Description:

A recombinant form of the spike (S) glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), B.1.1.529 BA.2 lineage (Omicron variant) was produced in human embryonic kidney HEK293F cells and purified by immobilized metal affinity and gel filtration chromatography. NR-56548 lacks the signal sequence and contains 223 residues of the SARS-CoV-2 S glycoprotein RBD and features a C-terminal octa-histidine tag fused to an AviTag™ BirA biotinylation acceptor sequence. NR-56548 includes S371F, S373P, S375F, T376A, D405N, R408S, K417N, N440K, S477N, T478K, E484A, Q493R, Q498R, N501Y and Y505H mutations in the S glycoprotein RBD as compared to the SARS-CoV-2 reference sequence (GenPept: [QHD43416](#)). Quality control testing was completed just prior to vialing.

Lot: 70051479

Manufacturing Date: 30MAR2022

TEST	SPECIFICATIONS	RESULTS
Appearance	Report results	Clear and colorless
Purity Analytical Fast Protein Liquid Chromatography (FPLC)	Report results	Peak observed at expected retention time (Figure 1)
Protein Concentration (A₂₈₀)	Report results	0.25 mg per mL
Final Product Amount per vial Volume per vial	Report results Report results	25 µg 100 µL
Functional Activity by Direct ELISA SARS-CoV-2 spike (S309) antibody ¹ SARS-CoV-2 spike S1 antibody ²	Report results Report results	Reactive (Figure 2) Reactive (Figure 3)

¹Pinto, D., et al. "Cross-Neutralization of SARS-CoV-2 by a Human Monoclonal SARS-CoV Antibody." *Nature* 583 (2020): 290-295. PubMed: 32422645.

²Using SARS-CoV-2 (2019-nCoV) Spike S1 Antibody, Rabbit mAb (Sino Biological catalog number 40150-R007)

Figure 1: Analytical FPLC

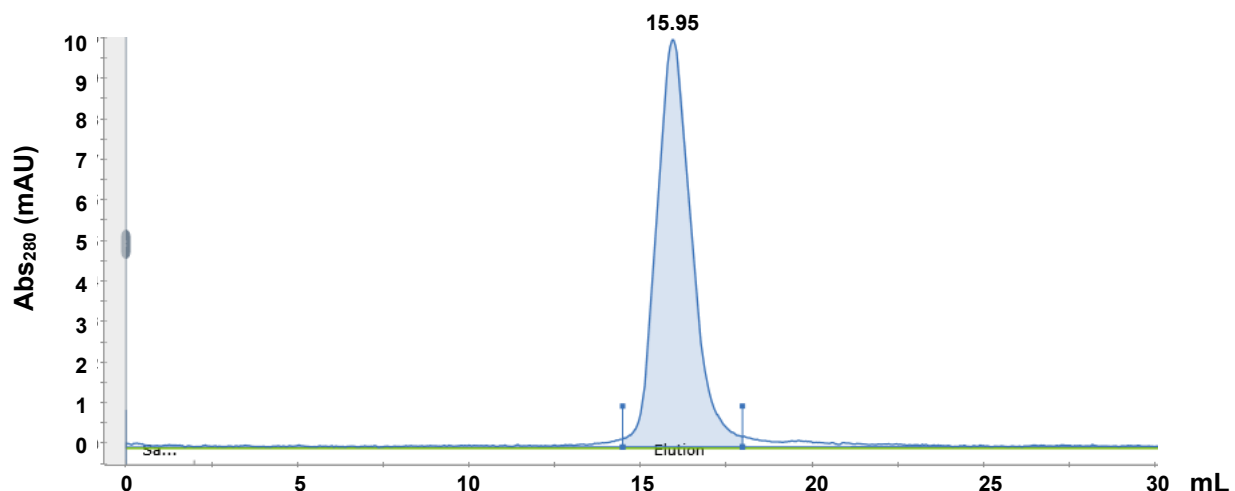


Figure 2: Direct ELISA with S309 mAb

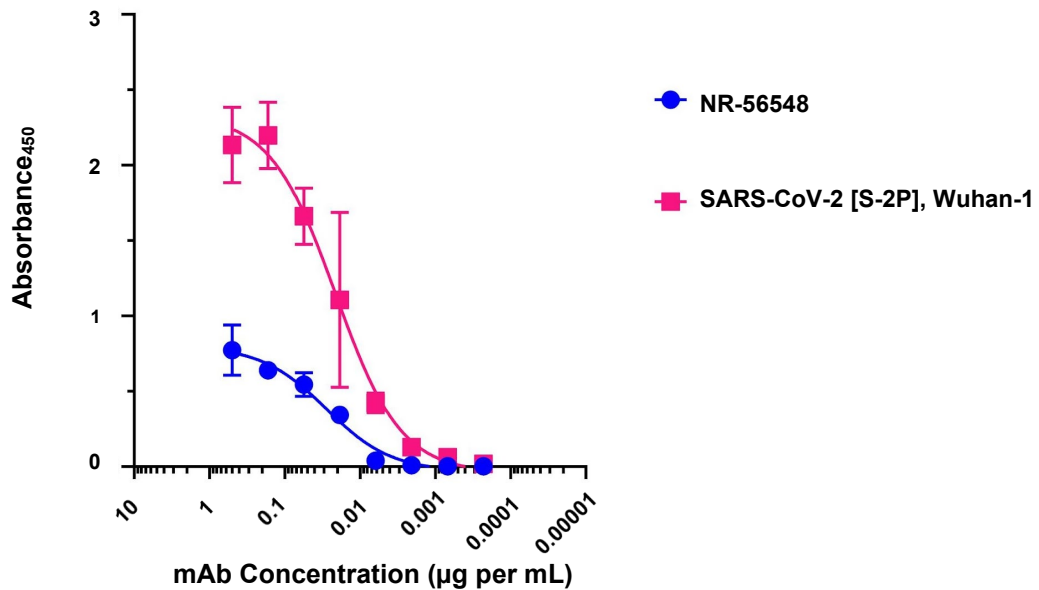
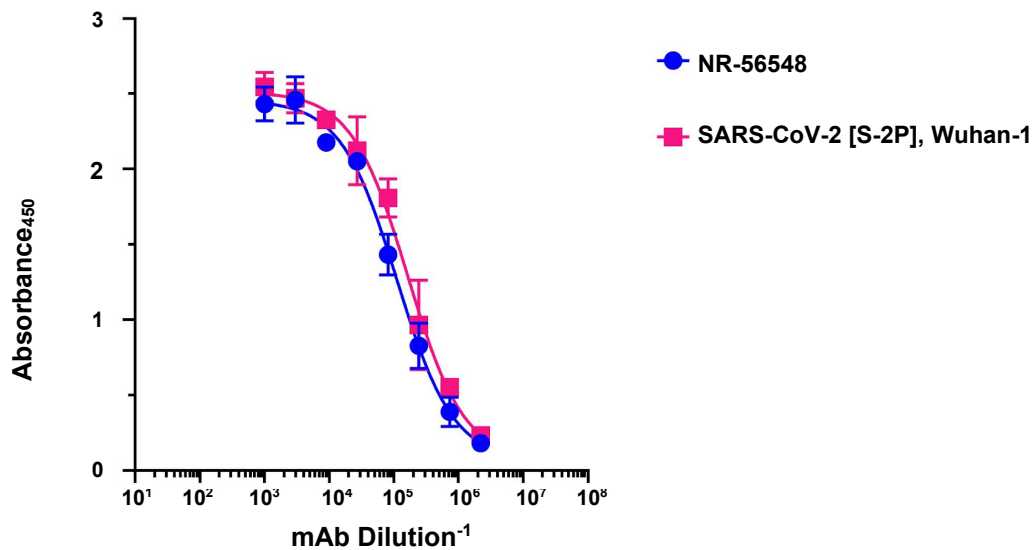


Figure 3: Direct ELISA with Spike S1 mAb



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