

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from Baculovirus

Catalog No. NR-52307

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

Product Description:

A recombinant form of the spike glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenPept: [QHD43416](#)) was produced in Sf9 insect cells using a baculovirus expression system and purified by nickel affinity chromatography. NR-52307 contains 223 residues of the SARS-CoV-2 spike glycoprotein RBD and features a C-terminal hexa-histidine tag.

Lot: 70036214

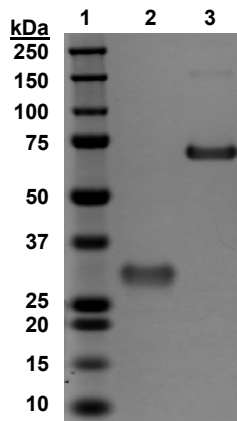
Manufacturing Date: 24JUL2020

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis (Coomassie Blue)	Protein band of interest represents > 90% of total staining intensity	Protein band of ~ 31 kDa represents > 90% of total staining intensity (Figure 1) ¹
Concentration by Bicinchoninic Acid Assay Bovine Serum Albumin (standard)	Report results	0.22 mg per mL
Final Product Amount per vial Volume per vial	Report results Report results	28 µg 125 µL
Functional Activity by Western Blot Analysis Monoclonal anti-histidine tag	Reactive	Reactive (Figure 2) ²
Sterility	0.2 µm sterile-filtered	0.2 µm sterile-filtered

¹The recombinant protein migrated to a slightly larger size than was expected, likely caused by glycosylation common in recombinant spike proteins derived from coronaviruses. For more information, please see Chakraborti, S., et al. "The SARS Coronavirus S Glycoprotein Receptor Binding Domain: Fine Mapping and Functional Characterization." *Virology*, 2 (2005): 73. PubMed: 16122388.

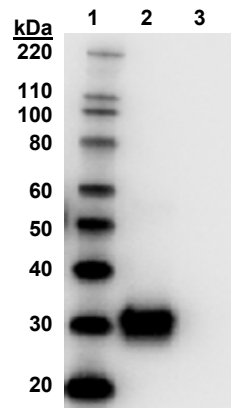
²Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (Clontech 631212) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody.

Figure 1: SDS-PAGE Analysis



Lane 1: Precision Plus Protein™ Standard (6 µL)
Lane 2: NR-52307 (1 µg)
Lane 3: Bovine serum albumin (1 µg)

Figure 2: Anti-Histidine Western Blot Analysis



Lane 1: MagicMark™ XP Protein Standard (5 µL)
Lane 2: NR-52307 (0.1 µg)
Lane 3: Bovine serum albumin (0.1 µg)

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