

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from HEK293F Cells

Catalog No. NR-52366

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 by transfection of purified plasmid (from BEI Resources NRC-52309 lot 70033696) in human embryonic kidney HEK293F cells (FreeStyle™; Gibco™ 51-0029) and purified by nickel affinity chromatography and vialled in phosphate buffered saline (PBS), pH 7.4. NR-52366 lacks the signal sequence and contains 223 residues of the SARS-CoV-2 spike glycoprotein RBD and features a C-terminal hexa-histidine tag.

Lot: 70035630

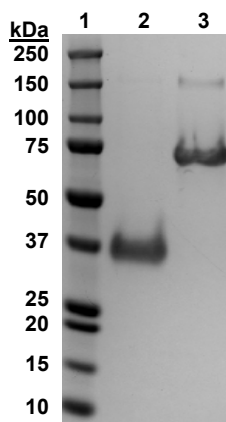
Manufacturing Date: 19MAY2020

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 ~ 35 kDa represents > 90% of total staining intensity (Figure 1) ¹
Concentration by Bradford Assay Bovine Serum Albumin (standard)	Report results	0.17 mg per mL
Final Product Amount per vial Volume per vial	Report results Report results	24 µg 138 µL
Functional Activity by Western Blot Analysis Monoclonal anti-histidine tag	Reactive	Reactive (Figure 2) ²
Sterility	0.22 µm sterile-filtered	0.22 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.

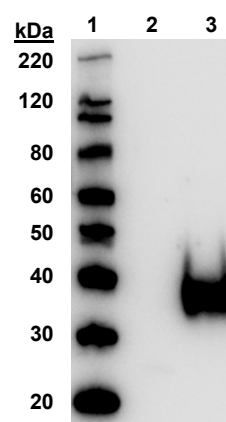
²Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (R&D Systems MAB050) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody.

Figure 1: SDS-PAGE Analysis



Lane 1: Precision Plus Protein™ Standard (6 µL)
Lane 2: NR-52366 (2 µg)
Lane 3: Bovine serum albumin (2 µg)

Figure 2: Anti-Histidine Western Blot Analysis



Lane 1: MagicMark™ XP Protein Standard (5 µL)
Lane 2: Bovine serum albumin (0.5 µg)
Lane 3: NR-52366 (0.5 µg)

/Heather Couch/

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11 JUN 2020

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