

**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 NR-52309 lot 70033695) in human embryonic kidney HEK293F cells (Expi293F™; Gibco™ A14527), purified by nickel affinity (Ni-NTA agarose) 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: 70034258**

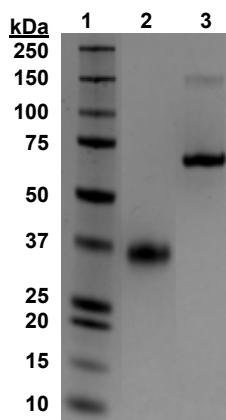
**Manufacturing Date: 30APR2020**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis (Coomassie Blue)</b>	Protein band of interest represents > 90% of total staining intensity	Protein band of ~ 35 kDa represents > 95% of total staining intensity (Figure 1) <sup>1</sup>
<b>Concentration by Bradford Assay</b> Bovine Serum Albumin (standard)	Report results	1.77 mg per mL
<b>Final Product</b> Amount per vial Volume per vial	Report results Report results	55 µg 31 µL
<b>Functional Activity by Western Blot Analysis</b> Monoclonal anti-histidine tag	Reactive	Reactive (Figure 2) <sup>2</sup>
<b>Sterility</b>	0.22 µm sterile-filtered	0.22 µm sterile-filtered

<sup>1</sup>The 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.

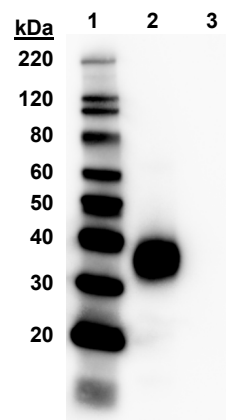
<sup>2</sup>Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (R&D Systems MAB050) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody.

**Figure 1: SDS-PAGE Analysis**



Lane 1: Precision Plus Protein™ Standard (4 µL)  
Lane 2: NR-52366 (1 µg)  
Lane 3: Bovine serum albumin (1 µg)

**Figure 2: Anti-Histidine Western Blot Analysis**



Lane 1: MagicMark™ XP Protein Standard (8 µL)  
Lane 2: NR-52366 (0.5 µg)  
Lane 3: Bovine serum albumin (0.5 µg)

/Heather Couch/

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11 MAY 2020

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