

**Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, G476S Variant with C-Terminal Histidine Tag, Recombinant from HEK293 Cells**

**Catalog No. NR-55401**

**ACROBiosystems Catalog No. SPD-C52H4**

**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), G476S variant was produced by transient transfection in human embryonic kidney HEK293 cells and purified by affinity chromatography. NR-55401 lacks the signal sequence, contains 223 residues of the SARS-CoV-2 S glycoprotein RBD (amino acid residues R319 to F541) and features a C-terminal poly-histidine tag. NR-55401 is from a variant of SARS-CoV-2 which contains the G476S mutation in the S glycoprotein as compared to the SARS-CoV-2 reference sequence (GenPept: [QHD43416](#)). NR-55401 lot 3763a-206GF1-TB was lyophilized from 156 µL of bulk protein in phosphate-buffered saline, pH 7.4 with 10% trehalose.

**Lot: 3763a-206GF1-TB**

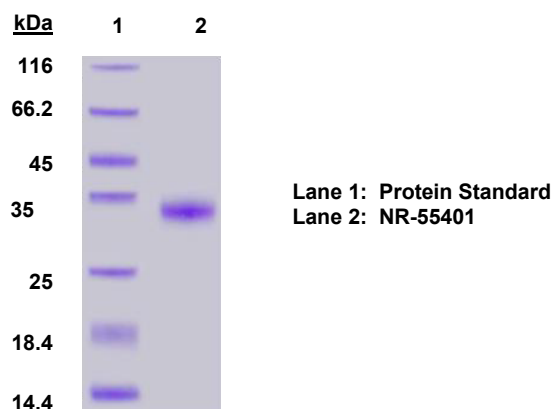
**Receipt Date: 13MAY2021**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	White powder	White powder
<b>Purity</b> SDS-PAGE Analysis	Protein band of interest represents > 95% of total staining intensity	Dominant band of ~ 34 kDa represents > 95% of total staining intensity (Figure 1) <sup>1</sup>
<b>Final Product</b> Amount per vial	Report results	100 µg
<b>Functional Activity by ELISA</b>	Reactive	Reactive <sup>2</sup>
<b>Filtration</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered
<b>Endotoxin Content</b> (Limulus Amoebocyte Lysate Assay)	< 1.0 EU per µg	< 1.0 EU per µg

<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 1 µg per mL (100 µL per well) of immobilized human ACE2, Fc tag (ACROBiosystems AC2-H5257) with a linear range of 2 to 16 ng per mL

**Figure 1: SDS-PAGE Analysis**



/Sonia Bjorum Brower/

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Lead Technical Writer or designee, ATCC Federal Solutions

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