

**Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, L452R Variant with C-Terminal Histidine Tag, Recombinant from HEK293 Cells**

**Catalog No. NR-55403**

**ACROBiosystems Catalog No. SPD-C52He**

**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), L452R variant was produced by transient transfection in human embryonic kidney HEK293 cells and purified by affinity chromatography and buffer exchange. NR-55403 lacks the signal sequence, contains 219 residues of the SARS-CoV-2 S glycoprotein (amino acid residues R319 to K537) and features a C-terminal poly-histidine tag. NR-55403 is from a variant of SARS-CoV-2 which contains the L452R mutation in the S glycoprotein as compared to the SARS-CoV-2 reference sequence (GenPept: [QHD43416](#)). NR-55403 lot 3964-209TF1-UT was lyophilized from 162 µL bulk protein in phosphate-buffered saline, pH 7.4 with 10% trehalose.

**Lot: 3964-209TF1-UT**

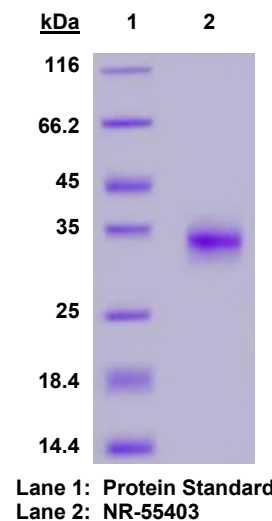
**Receipt Date: 13MAY2021**

TEST	SPECIFICATIONS	RESULTS
Appearance	White powder	White powder
SDS-PAGE Analysis	Protein band of interest represents > 90% of total staining intensity	Dominant band of ~ 34 kDa represents > 90% of total staining intensity (Figure 1) <sup>1</sup>
Final Product Amount per vial	Report results	100 µg
Functional Activity by ELISA	Reactive	Reactive <sup>2</sup>
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered
Endotoxin Content (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 of immobilized human ACE2, Fc tag (ACROBiosystems Cat. No. AC2-H5257) with a linear range of 0.1 to 2 ng per mL

**Figure 1: SDS-PAGE Analysis**



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29 SEP 2021

Program Manager or designee, ATCC Federal Solutions

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