

## **Certificate of Analysis for NR-55397**

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, V367F Variant with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

Catalog No. NR-55397 ACROBiosystems Catalog No. SPD-S52H4

## **Product Description:**

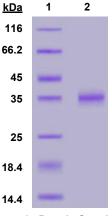
A recombinant form of the spike (S) glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), V367F variant was produced in human embryonic kidney HEK293 cells and purified. NR-55397 lacks the signal sequence, contains 223 residues of the SARS-CoV-2 spike glycoprotein RBD (amino acid residues R319 to F541) and features a C-terminal poly-histidine tag. NR-55397 is a variant of SARS-CoV-2 which contains the V367F mutation in the S glycoprotein RBD as compared to the SARS-CoV-2 reference sequence (GenPept: QHD43416). NR-55397 lot 3630-204EF1-W7 was lyophilized from 194 µL bulk protein in phosphate-buffered saline, pH 7.4 with 10% trehalose.

Lot: 3630-204EF1-W7 Receipt Date: 13MAY2021

TEST	SPECIFICATIONS	RESULTS
Appearance	White powder	White powder
SDS-PAGE Analysis	Protein band of interest represents > 95% of total staining intensity	Dominant band of ~ 35 kDa represents > 95% 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/μg

<sup>&</sup>lt;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." <u>Virol. J.</u> 2 (2005): 73. PubMed: 16122388.

Figure 1: SDS-PAGE Analysis



Lane 1: Protein Standard Lane 2: NR-55397

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<sup>&</sup>lt;sup>2</sup>Using 2 μg/mL (100 μL/well) of immobilized human ACE2, Fc tag (ACROBiosystems AC2-H5257) with a linear range of 1 to 16 ng/mL.



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/Sonia Bjorum Brower/ Sonia Bjorum Brower

12 MAR 2024

Technical Manager or designee, ATCC Federal Solutions

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