

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, N501Y Variant with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

Catalog No. NR-55413

ACROBiosystems Catalog No. SPD-C52Hn

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), N501Y variant was produced by transient transfection in human embryonic kidney HEK293 cells and purified by affinity chromatography and buffer exchange. NR-55413 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-55413 is a variant of SARS-CoV-2 which contains the N501Y mutation in the S glycoprotein as compared to the SARS-CoV-2 reference sequence (GenPept: [QHD43416](#)). NR-55413 lot 4329-2117F1-VF was lyophilized from 164 µL bulk protein in phosphate-buffered saline, pH 7.4 with 10% trehalose.

Lot: 4329-2117F1-VF

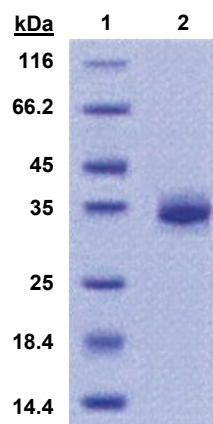
Receipt Date: 13MAY2021

TEST	SPECIFICATIONS	RESULTS
Appearance	White powder	White powder
Purity SDS-PAGE Analysis Gel filtration (SEC-MALS)	Protein band of interest represents > 95% of total staining intensity > 90% at appropriate molecular weight	Dominant band of ~ 35 kDa represents > 95% of total staining intensity (Figure 1) ¹ 95.48% at 32.12 kDa ¹
Final Product Amount per vial	Report results	100 µg
Functional Activity by ELISA	Reactive	Reactive ²
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

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 1 µg per mL of immobilized human ACE2, Fc tag (ACROBiosystems AC2-H5257) with a linear range of 2 to 39 ng per mL

Figure 1: SDS-PAGE Analysis



Lane 1: Protein Standard
Lane 2: NR-55413

/Heather Couch/

Heather Couch

30 JUN 2021

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