

Certificate of Analysis for NR-55342

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

Catalog No. NR-55342 BPS Bioscience Catalog No. 100770

Product Description:

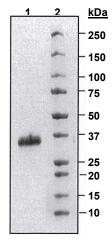
A recombinant form of the spike glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), V367F variant was produced by transient transfection in human embryonic kidney HEK293 cells, purified using affinity chromatography (Ni-NTA agarose) and biotinylated using AviTag™ technology.¹ NR-55342 lacks the signal sequence, contains 223 residues of the SARS-CoV-2 spike glycoprotein RBD (amino acid residues R319 to F541) and features an AviTag™ BirA biotinylation acceptor sequence fused to a C-terminal hexa-histidine tag. NR-55342 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).

Lot: 200529-2 Manufacturing Date: 29MAY2020

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis	Report results	Protein band of ~ 35 kDa represents ≥ 90% of total staining intensity (Figure 1)²
Biotinylation	Report results	≥ 90%
Purity		
Gel filtration	< 10% aggregation	< 10% aggregation (Figure 2) ²
Concentration by Bradford Assay (pre-vi	al)	
Bovine Serum Albumin (standard)	Report results	1.15 mg per mL
Final Product		
Amount per vial	Report results	55.0 μg
Volume per vial	Report results	47.8 μL

¹NR-55342 was not filter-sterilized after purification and may not have a sufficiently low bioburden to be stored at warmer temperatures than -80°C. ²The recombinant protein migrated to a higher molecular weight 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: NR-55342 (4 µg) Lane 2: MW ladder

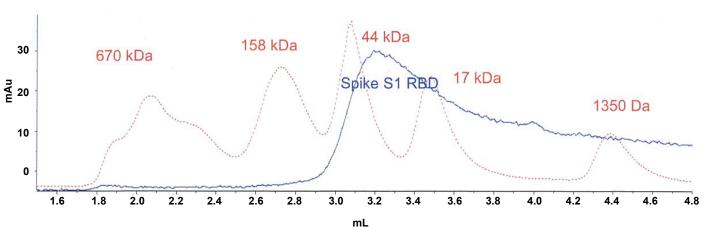
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/Heather Couch/

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Program Manager or designee, ATCC Federal Solutions

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