Certificate of Analysis for NR-55343

Spike Glycoprotein (Stabilized) from SARS-Related Coronavirus 2, D614G Variant with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

Catalog No. NR-55343
BPS Bioscience Catalog No. 100810

Product Description:

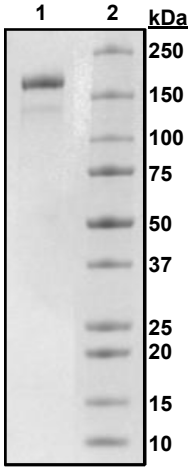
A recombinant form of the spike (S) glycoprotein from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), D614G mutant was produced by transient transfection in human embryonic kidney HEK293 cells and purified using affinity chromatography (Ni-NTA agarose).[1] NR-55343 lacks the signal sequence and contains 1195 residues (ectodomain; S1 + S2) of the SARS-CoV-2 S glycoprotein; the recombinant protein was modified to remove the polybasic S1/S2 cleavage site (RRAR to A; residues 682 to 685), stabilized with a pair of mutations (K986P and V987P, wild type numbering) and includes a thrombin cleavage site, T4 foldon trimerization domain and C-terminal hexa-histidine tag. NR-55343 is a variant of SARS-CoV-2 which contains the D614G mutation in the S glycoprotein as compared to the SARS-CoV-2 reference sequence (GenPept: QHD43416).

Lot: 210422 **Manufacturing Date: 21APR2021**

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis	Report results	Protein band of ~ 170 kDa represents ≥ 90% of total staining intensity (Figure 1)[2]
Concentration by Bradford Assay (pre-vial)		
Bovine Serum Albumin (standard)	Report results	1.21 mg per mL
Final Product		
Amount per vial	Report results	52.0 µg
Volume per vial	Report results	43.0 µL

[1]NR-55343 was not filter-sterilized after purification and may not have a sufficiently low bioburden to be stored at warmer temperatures than -80°C.
[2]The 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." Virol. J. 2 (2005): 73. PubMed: 16122388.

Figure 1: SDS-PAGE Analysis



Lane 1: NR-55343
Lane 2: MW ladder

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