b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-56480

Spike S1 Glycoprotein from SARS-Related Coronavirus 2, B.1.1.529 (Omicron) with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

Catalog No. NR-56480
Sino Biological Catalog No. 40591-V08H41

Product Description:

A recombinant form of the spike glycoprotein S1 from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), B.1.1.529 (Omicron) which originated in South Africa was produced by transfection in human embryonic kidney HEK293 cells and purified. NR-56480 lacks the signal sequence and contains 668 residues of the SARS-CoV-2 S glycoprotein and contains a C terminal poly-histidine tag. NR-56480 includes A67V, delHV69-70, T95I, G142D, delVYY143-145, delN211, L212I, ins214EPE, G339D, S371L, S373P, S375F, K417N, N440K, G446S, S477N, T478K, E484A, Q493R, G496S, Q498R, N501Y, Y505H, T547K, D614G, H655Y, N679K and P681H mutations in the S glycoprotein as compared to the SARS-CoV-2 reference sequence (GenPept: YP_009724390).

Lot: MA15DE2112 **Manufacturing Date: 21DEC2021**

TEST	SPECIFICATIONS	RESULTS
Appearance	Transparent liquid, free of foreign material	Transparent liquid, free of foreign material
Purity SDS-PAGE and Quantitative Densitometry SEC-HPLC	 Target protein band(s) > 95 ± 3% Target protein band(s) > 95%	 Target protein band(s) 97.1%[1] Target protein band(s) 99.8%
Concentration (A_{280})	Report results	0.59 mg per mL
Final Product Amount per vial Volume per vial	 Report results Report results	 50 µg ~85 µL
Functional ELISA	Report results	Positive
pH	7.4 ± 0.5	7.4 ± 0.5
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	< 1 EU per µg	< 1 EU per µg

[1]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." Virol. J. 2 (2005): 73. PubMed: 16122388.

/Sonia Bjorum Brower/
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