b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-53800

Spike Glycoprotein Receptor Binding Domain (RBD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

Catalog No. NR-53800
Sino Biological Catalog No. 40592-V08H

Product Description:

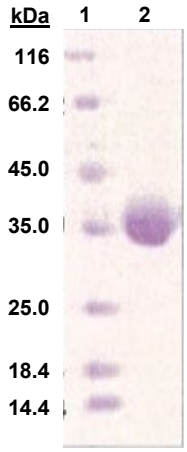
A recombinant form of the spike glycoprotein receptor binding domain (RBD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenPept: YP_009724390) was produced by transfection in human embryonic kidney HEK293 cells and purified. NR-53800 lacks the signal sequence, 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.

Lot: MB14AP2601 **Manufacturing Date: 26APR2020**

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) 97.5% (Figure 1)[1] Target protein band(s) > 95% (Figure 2)
Concentration (A_{280})	Report results	6.55 mg per mL
Final Product[2] Amount per vial Volume per vial	 Report results Report results	 50 µg 8 µL
Functional ELISA	Positive	Positive
pH	7.4 ± 0.5	7.4 ± 0.5
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	< 1 EU per µg	< 1 EU per µg

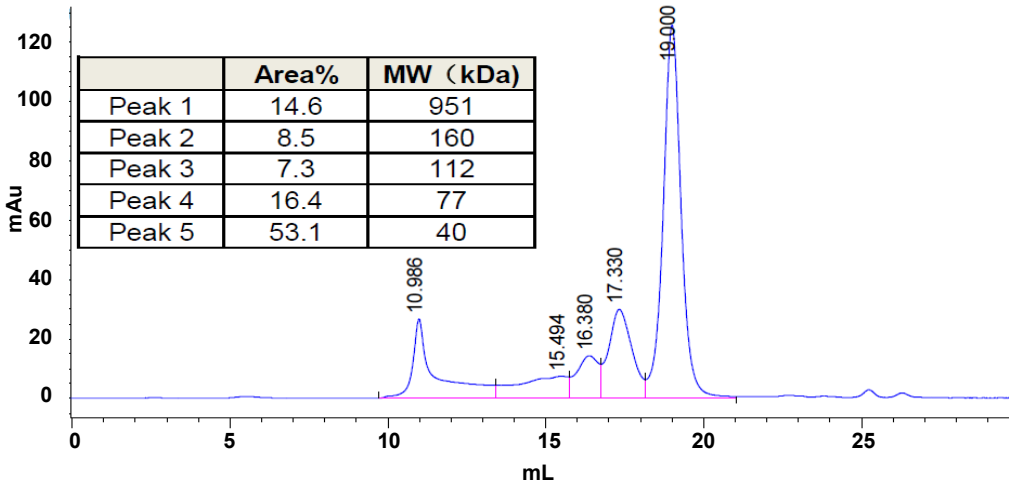
[1]The recombinant protein migrated to a slightly larger size than was expected, likely caused by glycosylation common in recombinant spike proteins derived from coronaviruses. For more information, please see Chakraborti, S., et al. "The SARS Coronavirus S Glycoprotein Receptor Binding Domain: Fine Mapping and Functional Characterization." Virol. J. 2 (2005): 73. PubMed: 16122388.
[2]Note: the vial should be centrifuged prior to opening.

Figure 1: SDS-PAGE



Lane 1: MW ladder
Lane 2: NR-53800

Figure 2: SEC-HPLC



	Area%	MW (kDa)
Peak 1	14.6	951
Peak 2	8.5	160
Peak 3	7.3	112
Peak 4	16.4	77
Peak 5	53.1	40

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/Heather Couch/
Heather Couch 28 MAY 2021
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