### Certificate of Analysis for NR-56132

# Spike Glycoprotein (Stabilized) from SARS-Related Coronavirus 2, with C-Terminal Histidine and Twin-Strep® Tags, Recombinant from HEK293F Cells

#### Catalog No. NR-56132

This reagent is the tangible property of the U.S. Government.

#### **Product Description:**

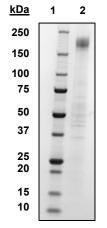
Note: The Strep tag designation on the label is incorrect; the correct Strep tag is a Twin-Strep® tag. A recombinant form of the spike (S) glycoprotein from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2; GenPept: QIZ14569.1) was produced by transient transfection into human embryonic kidney HEK293F cells and purified by immobilized metal affinity chromatography. NR-56132 lacks the signal sequence and contains 1196 residues (ectodomain) of the SARS-CoV-2 spike glycoprotein; the recombinant protein was stabilized by substitution at the furin S1/S2 cleavage site (RRAR→GSAS; residues 670 to 673) and KV→PP mutations (residues 974 and 975), and includes a HRV3C protease cleavage site, T4 foldon trimerization domain, and C-terminal octa-histidine and Twin-Strep® tags. Quality control testing was completed just prior to vialing.

Lot: 70047737 Manufacturing Date: 20SEP2021

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis	Report results	Protein band of > 170 kDa represents 93.1% of total staining intensity (Figure 1)
Concentration by Bicinchoninic Acid Assay Bovine Serum Albumin (standard)	Report results	1.0 mg per mL
Final Product Amount per vial Volume per vial	Report results Report results	100 μg 100 μL
Functional Activity by Western Blot Analysis Monoclonal anti-histidine tag	Reactive	Reactive (Figure 2) <sup>1</sup>
Sterility	0.22 µm sterile-filtered	0.22 µm sterile-filtered

<sup>&</sup>lt;sup>1</sup>Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (R&D Systems, Inc., His-Tag HRP-Conjugated Antibody, Catalog No. MAB050H) as primary antibody.

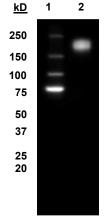
Figure 1: SDS-PAGE Analysis



Lane 1: Precision Plus Protein™ Standard

Lane 2: NR-56132 (1.5 µg)

Figure 2: Anti-Histidine Western Blot Analysis



Lane 1: Precision Plus Protein™ Standard

Lane 2: NR-56132 (1.5 μg)

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## Certificate of Analysis for NR-56132

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Lead Technical Writer or designee, ATCC Federal Solutions

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