

**Spike Glycoprotein (Stabilized) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from Baculovirus**

**Catalog No. NR-52396**

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

**Product Description:**

A recombinant form of the spike (S) glycoprotein from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenPept: [QHD43416](#)) was produced in High Five™ insect cells using a baculovirus expression system and purified by nickel affinity chromatography. NR-52396 lacks the signal sequence and contains 1196 residues (ectodomain) of the SARS-CoV-2 spike 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.

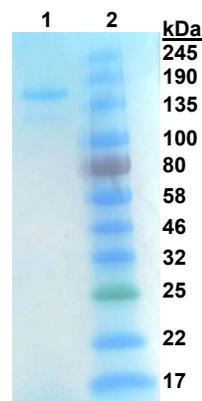
**Lot: 70034741**

**Manufacturing Date: 23MAR2020**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis</b>	Protein band of interest represents > 90% of total staining intensity	Protein band of ~ 150 kDa represents > 90% of total staining intensity (Figure 1) <sup>1</sup>
<b>Protein Concentration by Bradford Assay</b>	Report results	0.25 mg per mL
<b>Final Product</b> Amount per vial Volume per vial	Report results Report results	25 µg 100 µL
<b>Functional Activity by Western Blot Analysis</b> Monoclonal anti-histidine tag	Reactive	Reactive

<sup>1</sup>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." *Virology*, 2 (2005): 73. PubMed: 16122388.

**Figure 1: SDS-PAGE Analysis**



Lane 1: NR-52396 (1 µg)  
Lane 2: NEB Color Prestained Protein Standard, Broad Range

/Heather Couch/  
Heather Couch

08 APR 2020

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