

Product Information Sheet for NR-53799

Spike Glycoprotein S2 Extracellular Domain (ECD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from Baculovirus

Catalog No. NR-53799

Sino Biological Catalog No. 40590-V08B

For research use only. Not for use in humans.

Contributor and Manufacturer:

Sino Biological, Wayne, Pennsylvania, USA

Product Description:

A recombinant form of the spike glycoprotein S2 extracellular domain (ECD) from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenPept: [YP_009724390](#)) was produced by transfection in insect cells using a baculovirus expression system and purified.^{1,2} NR-53799 lacks the signal sequence, contains 528 residues of the SARS-CoV-2 spike glycoprotein S2 ECD (amino acid residues S686 to P1213) and features a C-terminal poly-histidine tag.^{1,2} The predicted protein sequence is shown in Figure 1. NR-53799 has a theoretical molecular weight of 59,370 daltons.¹ Representative SDS-PAGE results are shown in Figure 2.¹

Material Provided:

Each vial contains approximately 50 µg of purified recombinant protein in phosphate buffered saline (PBS, pH 7.0) supplemented with 2% glycerol. **Note:** NR-53799 was not lyophilized. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-53799 was packaged aseptically in cryovials. The product is provided on dry ice and should be stored under sterile conditions at -20°C to -80°C immediately upon arrival. It is recommended that the protein be aliquoted for optimal storage.¹ Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Spike Glycoprotein S2 Extracellular Domain (ECD) from SARS-Related Coronavirus 2, Wuhan-Hu-1 with C-Terminal Histidine Tag, Recombinant from Baculovirus, NR-53799."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed.

Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Lu, Z., Personal Communication.
2. Wu, F., et al. "A New Coronavirus Associated with Human Respiratory Disease in China." Nature 579 (2020): 265-269. PubMed: 32015508.

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Figure 1: Predicted Protein Sequence

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1  SVASQSIIAY TMSLGAENSV AYSNNSIAIP TNFTISVTTE ILPVSMTKTS
51 VDCTMYICGD STECSNLLLQ YGSFCTQLNR ALTGIAVEQD KNTQEVFAQV
101 KQIYKTPPIK DFGGFNFSQI LPDPSKPSKR SFIEDLLFNK VTLADAGFIK
151 QYGDCLGDIA ARDLICAQKF NGLTVLPPLL TDEMIAQYTS ALLAGTITSG
201 WTFGAGAALQ IPFAMQMAYR FNGIGVTQNV LYENQKLIAN QFNSAIGKIQ
251 DSLSSTASAL GKLQDVVNQN AQALNTLVKQ LSSNFGAISS VLNDILSRLD
301 KVEAEVQIDR LITGRLQSLQ TYVTQQILRA AEIRASANLA ATKMSECVLG
351 QSKRVDFCGK GYHLMSFPQS APHGVVFLHV TYVPAQEKNF TTAPAICHDG
401 KAHFPREGVF VSNGTHWFTV QRNFYEPQII TTDNTFVSGN CDVVIGIVNN
451 TVYDPLQPEL DSFKEELDKY FKNHTSPDVD LGDISGINAS VVNIQKEIDR
501 LNEVAKNLNE SLIDLQELGK YEQYIKWPAH HHHHHHHHH

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S2 ECD – Residues 1 to 528 (represents amino acid residues 686 to 1213)

Poly-histidine tag – Residues 530 to 539

Figure 2: Representative SDS-PAGE



Lane 1: MW ladder
Lane 2: NR-53799