

# SARS-Related Coronavirus 2, B.1.1.529 (Omicron) Nucleocapsid Protein with N-Terminal Histidine Tag, Recombinant from *E. coli*

**Catalog No. NR-56478**

**Sino Biological Catalog No. 40588-V07E34**

**For research use only. Not for use in humans.**

## Contributor and Manufacturer:

Sino Biological, Wayne, Pennsylvania, USA

## Product Description:

A recombinant form of the nucleocapsid protein from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), B.1.1.529 (Omicron) which originated in South Africa was produced in *E. coli* and purified. NR-56478 contains 423 residues of the SARS-CoV-2 nucleocapsid protein (GenPept: [YP\\_009724397](#)). The recombinant protein contains mutations P13L, ERS31-33 deletion, R203K and G204R and features a poly-histidine tag at the N-terminus.<sup>1</sup> The predicted protein sequence is shown in Figure 1. NR-56478 has a theoretical molecular weight of 46.30 kilodaltons.<sup>1</sup> Representative SDS-PAGE results are shown in Figure 2.

## Material Provided:

Each vial contains approximately 50 µg of purified recombinant protein in phosphate buffered saline (PBS, pH 7.4), with 500mM NaCl. Note: NR-56478 was not lyophilized. The concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

## Packaging/Storage:

NR-56478 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. Freeze-thaw cycles should be avoided.

## Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: SARS-Related Coronavirus 2, B.1.1.529 (Omicron) Nucleocapsid Protein with N-Terminal Histidine Tag, Recombinant from *E. coli*, NR-56478."

## 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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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## References:

1. Lu, Z., Personal Communication.

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Figure 1: Predicted Protein Sequence

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1   MHHHHHMSD NGPQNQRNAL RITFGGPSDS TGSNQNGGAR SKQRRPQGLP
51  NNTASWFTAL TQHGKEDLKF PRGQGVPI NTSSPDDQIGY YRRATRRIRG
101 GDGKMKDLSP RWYFYI LGTG PEAGLPYGAN KDGI IWVATE GALNTPKDHI
151 GTRNPANNAA IVLQLPQGT LPKGFYAEGS RGGSQASSRS SSRSRNSSRN
201 STPGSSKRTS PARMAGNGGD AALALLLLDR LNQLSKMSG KGQQQQQGQTV
251 TKKSAAEASK KPRQKRTATK AYNVTQAFGR RGPEQTQGNF GDQELIRQGT
301 DYKHWPQIAQ FAPSASAFFG MSRIGMEVTP SGTWLTYTGA IKLDDKDPNF
351 KDQVILLNKH IDAYKTFPPT EPKKDKKKKA DETQALPQRQ KKQQTVTLLP
401 AADLDDFSKQ LQSMSSADS TQA

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Nucleocapsid protein – **Residues 8 to 423** [represents amino acid residues 1 to 419 of the native protein (GenPept: [YP\\_009724397](#))]

Hexa-histidine tag – **Residues 2 to 7**

P13L, R203K, G204R- **Residues 20, 207, 208**

Figure 2: Representative SDS-PAGE

