

## Vector pET-28a(+) Containing the SARS-Related Coronavirus 2, Wuhan-Hu-1 Non-Structural Protein 15 Gene

### Catalog No. NR-53506

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#### Contributor:

Wesley Van Voorhis, M.D., Ph.D., Professor, Department of Medicine, Division of Allergy and Infectious Diseases (AID), Director, Center for Emerging and Re-emerging Infectious Diseases (CERID), and Co-Principal Investigator, Seattle Structural Genomics Center for Infectious Disease (SSGCID), University of Washington, Seattle, Washington, USA

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#### Manufacturer:

BEI Resources

#### Product Description:

The non-structural protein 15 (nsp15) gene from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenBank: [MN908947](#)) was codon optimized, tagged with a tobacco etch virus (TEV) cleavable N-terminal hexa-histidine tag and cloned into the [pET-28a\(+\)](#) plasmid.<sup>1,2</sup> The kanamycin resistance gene, *aph*, provides transformant selection through kanamycin resistance in *Escherichia coli* (*E. coli*). The resulting size of the plasmid is approximately 6350 base pairs. The complete plasmid sequence and map are provided on the BEI Resources webpage. The plasmid was produced in *E. coli* and extracted.

NSP15 is an uridylyate-specific endoribonuclease whose exact function is unknown.<sup>3,4</sup>

#### Material Provided:

Each vial contains plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0). The DNA concentration and volume provided are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening. **Note:** The contents of the vial should be used to replicate the plasmid in *E. coli* prior to expression studies.

#### Packaging/Storage:

NR-53506 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Vector pET-28a(+) Containing the SARS-Related Coronavirus 2, Wuhan-Hu-1 Non-Structural Protein 15 Gene, NR-53506."

#### 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](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmb15/index.htm](http://www.cdc.gov/biosafety/publications/bmb15/index.htm).

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**References:**

1. Van Voorhis, W., Personal Communication.
2. Wu, F., et al. "A New Coronavirus Associated with Human Respiratory Disease in China." Nature 579 (2020): 265-269. PubMed: 32015508.
3. Subissi, L., et al. "SARS-CoV ORF1b-Encoded Nonstructural Proteins 12-16: Replicative Enzymes as Antiviral Targets." Antiviral Res. 101 (2014): 122-130. PubMed: 24269475.
4. Kim, Y., et al. "Crystal Structure of NSP15 Endoribonuclease NendoU from SARS-CoV-2." Protein Sci. (2020): doi: 10.1002/pro.3873. PubMed: 32304108.

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