

**Vector pCAGGS Containing SARS Coronavirus Nonstructural Protein 3**

**Catalog No. NR-15179**

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

The nonstructural protein 3 (nsp3) coding sequence from the Urbani strain of the severe acute respiratory syndrome-related coronavirus (SARS-CoV) was subcloned into a modified pCAGGS mammalian expression vector.<sup>1</sup> The construct was engineered to encode a C-terminal fragment containing linker sequences, a hemagglutinin (HA) tag, a tobacco etch virus (TEV) protease cleavage site, and a 23 amino acid sequence that is site-specifically biotinylated by the *Escherichia coli* (*E.coli*) biotin ligase BirA.<sup>2</sup> The resulting plasmid was named pCC431. NR-15179 was produced in *E. coli* TOP10 cells (Invitrogen™) and extracted using a QIAGEN® Plasmid Plus Maxi Kit.

Note that this full-length nsp3 construct failed to show protein expression following transfection of HEK293/ACE2 cells.<sup>1</sup>

NR-15179 has been qualified for use in bacterial transformations.

**Material Provided:**

Each vial contains approximately 100 µL of plasmid DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 7.0). The DNA concentration and content are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

**Packaging/Storage:**

NR-15179 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 pCAGGS Containing SARS Coronavirus Nonstructural Protein 3, NR-15179.”

**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/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Cornillez-Ty, C.T., et al. “Severe Acute Respiratory Syndrome Coronavirus Nonstructural Protein 2 Interacts with a Host Protein Complex Involved in Mitochondrial Biogenesis and Intracellular Signaling.” J. Virol. 83 (2009): 10314-10318. PubMed: 19640993.
2. deBoer, E., et al. “Efficient Biotinylation and Single-Step Purification of Tagged Transcription Factors in Mammalian Cells and Transgenic Mice.” Proc. Natl. Acad. Sci. USA. 100 (2003): 7480-7485. PubMed: 12802011.

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