

**Vector pET-28a(+)** Containing the SARS-Related Coronavirus 2, Wuhan-Hu-1 Non-Structural Protein 8 Gene

**Catalog No. NR-53500**

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

**Product Description:**

The non-structural protein 8 (nsp8) gene from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenBank: [MN908947](https://www.ncbi.nlm.nih.gov/nuccore/MN908947)) was codon optimized, tagged with a thrombin cleavable N-terminal hexa-histidine tag and cloned into the [pET-28a\(+\)](#) plasmid. The kanamycin resistance gene, *aph*, provides transformant selection through kanamycin resistance in *Escherichia coli* (*E. coli*). The deposited plasmid was transformed into One Shot™ TOP10 *E. coli* (Invitrogen™ C404003), grown in Luria-Bertani broth with kanamycin (50 µg per mL) for 1 day at 37°C in an aerobic atmosphere, extracted using a Plasmid Plus Maxi Kit (QIAGEN® 12963) and vialied in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

**Lot: 70036465**

**Manufacturing Date: 03JUN2020**

TEST	SPECIFICATIONS	RESULTS
<b>Next-Generation DNA Sequencing</b>	~ 5890 base pairs	5898 base pairs <sup>1</sup>
<b>Genotypic Analysis</b> Sequencing of nsp8 insert (~ 590 base pairs)	100% sequence identity to depositor's sequence His <sub>6</sub> tag sequence confirmed Thrombin cleavage site sequence confirmed	100% sequence identity to depositor's sequence <sup>2</sup> His <sub>6</sub> tag sequence confirmed Thrombin cleavage site sequence confirmed
<b>Antibiotic Resistance</b> Kanamycin (encoded by <i>aph</i> )	<i>aph</i> sequence present	<i>aph</i> sequence present
<b>Concentration by Qubit™ Measurement</b>	≥ 2 µg/mL	0.2 µg in 20 µL per vial (10 µg/mL)
<b>Amount per Vial</b>	Report results	0.2 µg per vial
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio (pre-vial)</b>	1.7 to 2.1	2.0
<b>Effective Bacterial Transformation</b> Invitrogen™ One Shot™ TOP10 <i>E. coli</i>	≥ 50 colonies per ng	176 colonies per ng

<sup>1</sup>The sequence was assembled pre-vial using the depositor's predicted sequence as the reference sequence. The complete plasmid sequence and map are provided on the BEI Resources webpage.

<sup>2</sup>The NR-53500 insert was codon optimized but is 100% identical with the SARS-CoV-2, Wuhan-Hu-1 NSP8 protein (GenPept: QHD43415).

/Heather Couch/

Heather Couch

26 AUG 2020

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by ATCC® and the contributor to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

