

Vector pCAGGS Containing the SARS-Related Coronavirus 2, Wuhan-Hu-1 Open Reading Frame 8 (ORF8) Gene

Catalog No. NR-58964

Product Description:

The Open Reading Frame 8 (ORF8) gene from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenBank: [NC_045512.2](#)) was codon optimized, tagged with N-terminal hexa-histidine tag and cloned into the pCAGGS plasmid. The ampicillin resistance gene, *bla*, provides transformant selection through ampicillin 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 ampicillin (100 µg/mL) for 1 day at 37°C in an aerobic atmosphere, extracted using a Plasmid Plus Maxi Kit (QIAGEN® 12963) and vialled in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70058851

Manufacturing Date: 06MAR2023

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	~ 5100 base pairs	5067 base pairs ¹
Genotypic Analysis Sequencing of ORF8 gene insert (~ 390 base pairs) N-terminal His tag	100% sequence identity to depositor's sequence His tag sequence confirmed	100% sequence identity to depositor's sequence ² His tag sequence confirmed
Antibiotic Resistance Ampicillin (encoded by beta-lactamase gene <i>bla</i>)	<i>bla</i> sequence present	<i>bla</i> sequence present
Concentration by PicoGreen® Measurement	≥ 2 µg/mL	1.8 µg in 100 µL/vial (18 µg/mL)
Amount per Vial	Report results	1.8 µg/vial
OD₂₆₀/OD₂₈₀ Ratio (pre-vial)	1.7 to 2.1	1.9
Effective Bacterial Transformation Invitrogen™ One Shot™ TOP10 <i>Escherichia coli</i>	≥ 50 colonies/ng	204 colonies/ng

¹The sequence was assembled pre-vial using *de novo* analysis. The complete plasmid sequence is provided on the BEI Resources webpage.

²The NR-58964 insert was codon optimized but otherwise is consistent with the SARS-CoV-2, Wuhan-Hu-1 ORF8 protein.

/Sonia Bjorum Brower/

Sonia Bjorum Brower

17 JUL 2024

Technical 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® 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.

