

**Vector pAH Containing Human Respiratory Syncytial Virus (RSV), A2 Recombinant Glycoprotein F (+) FdTHS DS-Cav1 Gene (Prefusion)**

**Catalog No. NR-55425**

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

**Product Description:**

NR-55425 is an expression vector encoding human respiratory syncytial virus (RSV), A2 recombinant prefusion F glycoprotein variant DS-Cav1. The construct consists of synthesized, mammalian codon-optimized RSV F(+) residues 1 to 513 [containing two sets of mutations: S155C AND S290C (DS) and S190F-V207L (Cav1)], a C-terminal T4 fibrin trimerization motif, thrombin cleavage site, hexa-histidine tag, and Strep-tag®II. The RSV F variant is derived from A2 strain (GenPept: [P03420](#)) with three naturally occurring substitutions (P102A, I379V and M447V) for enhanced protein expression. NR-55425 contains the beta-lactamase gene, *bla*, to provide transformant selection through ampicillin resistance in *Escherichia coli* (*E. coli*). The deposited plasmid was transformed into One Shot™ TOP10 *Escherichia coli* (Invitrogen™ C404003), grown in LB 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: 70059262**

**Manufacturing Date: 08MAR2023**

TEST	SPECIFICATIONS	RESULTS
<b>Next-Generation DNA Sequencing (pre-vial)</b>	~ 6251 base pairs	6155 base pairs
<b>Genotypic Analysis</b> Sequencing of glycoprotein F (+) FdTHS DS-Cav1 insert <sup>1</sup> (~ 1700 base pairs)	≥ 99% sequence identity to depositor's sequence	100% sequence identity to depositor's sequence
<b>Antibiotic Resistance</b> Ampicillin (encoded by beta-lactamase gene <i>bla</i> )	<i>bla</i> sequence present	<i>bla</i> sequence present
<b>Concentration by Qubit Fluorometer®</b>	≥ 2 µg/mL	1.7 µg in 100 µL/vial (17 µg/mL)
<b>Amount per Vial</b>	Report results	1.7 µg/vial
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio</b>	1.7 to 2.1	1.9
<b>Effective Bacterial Transformation</b> Invitrogen™ One Shot™ TOP10 <i>E. coli</i>	≥ 50 colonies/ng	520 colonies/ng

<sup>1</sup>The sequence was assembled pre-vial using the depositor's predicted sequence as the reference sequence. *De novo* assembly was performed.

/Sonia Bjorum Brower/

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05 DEC 2023

Technical Manager or designee, ATCC Federal Solutions

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