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SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-55425

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

Catalog No. NR-55425

Product Description:

NR-55425 is an expression vector encoding Respiratory Syncytial Virus A2 (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 fibritin 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 vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70059262 **Manufacturing Date: 08MAR2023**

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

[1]The sequence was assembled pre-vial using the depositor's predicted sequence as the reference sequence. *De novo* assembly was performed.

/Sonia Bjorum Brower/
Sonia Bjorum Brower 05 DEC 2023
Technical Manager or designee, ATCC Federal Solutions

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Support Provided by NIAID

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