

Vector CMVR Containing the Murine Anti-Middle East Respiratory Syndrome Coronavirus Spike Monoclonal Antibody G4 Heavy Chain Gene

Catalog No. NR-52030

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Product Description:

NR-52030 is an expression vector containing a 1401 base pair (VH+CH) insert that encodes a murine anti-Middle East respiratory syndrome coronavirus (MERS-CoV) spike (S) monoclonal antibody G4 heavy chain gene. The vector contains regulatory elements CMV enhancer/promoter, CMV IE splicing acceptor and HTLV-1 R region/splicing donor. Murine Ig heavy chain leader is provided as the targeting sequence. 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/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).

Lot: 70047581

Manufacturing Date: 18OCT2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	~ 5800 base pairs	5810 base pairs ¹
Genotypic Analysis Anti-MERS-CoV spike monoclonal antibody G4 heavy chain gene (~ 1400 base pairs)	≥ 99% sequence identity to depositor's sequence	99.5% sequence identity to depositor's sequence ²
Antibiotic Resistance Kanamycin (encoded by <i>aph</i>)	<i>aph</i> sequence present	<i>aph</i> sequence present
Concentration by Qubit Fluorometer®	≥ 2 µg/mL	0.26 µg in 30 µL/vial (8.6 µg/mL)
Amount per Vial	Report results	0.26 µg/vial
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9
Effective Bacterial Transformation Invitrogen™ One Shot™ TOP10 <i>E. coli</i>	≥ 50 colonies per ng	193 colonies per ng

¹The 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.

²Comparison to the depositor's sequence indicates there are seven SNPs, six of which are within the plasmid insert, g1441c, c1443g, a1447c, g1453c, t1454a g1456c and t1845c, resulting in amino acid change at D20Q, K22Q, V24Q and E25Q, respectively. The effect of these SNPs on protein structure and function is not known.

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30 OCT 2024

Technical Manager or designee, ATCC Federal Solutions

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