

Vector VRC4819 Containing the Murine Anti-Middle East Respiratory Syndrome Coronavirus Spike Monoclonal Antibody G2 Heavy Chain Gene

Catalog No. NR-52028

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Product Description:

NR-52028 is an expression vector containing a 1388 base pair insert (VH+CH) that encodes a murine anti-Middle East respiratory syndrome coronavirus (MERS-CoV) spike (S) monoclonal antibody G2 heavy chain gene. The vector contains the regulatory elements CMV enhancer/promoter, CMV IE splicing acceptor and HTLV-1 R region/splicing donor. Murine Ig heavy 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 per 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: 70047577

Manufacturing Date: 18OCT2021

TEST	SPECIFICATIONS	RESULTS
Next-Generation DNA Sequencing	~ 5790 base pairs	5798 base pairs ¹
Genotypic Analysis Anti-MERS - CoV spike monoclonal antibody G2 heavy chain gene (~ 1390 base pairs)	≥ 99% sequence identity to depositor's sequence	99.9% 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 per mL	0.3 µg in 30 µL per vial (11.2 µg/mL)
Amount per Vial	Report results	0.3 µg per 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	180 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 two SNPs within the plasmid insert: g1432t (L17V) and a2766t (K461N). The effect of these SNPs is not known.

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Technical Manager or designee, ATCC Federal Solutions

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