Vector pCAGGS Containing the SARS-CoV-2, Wuhan-Hu-1 Spike Glycoprotein Gene

Catalog No. NR-52310
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For research use only. Not for human use.

Contributor and Manufacturer:
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Product Description:
NR-52310 expresses the full-length, unmodified S glycoprotein, and is intended for producing pseudotyped particles/pseudovirions. NR-52310 is not intended for recombinant protein expression.

The vector for the spike (S) glycoprotein gene from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenBank: MN908947) was designed by codon optimizing the full-length S sequence for mammalian expression and subcloning into the pCAGGS mammalian expression vector. The resulting size of the plasmid is approximately 8580 base pairs. The complete plasmid sequence is provided on the Certificate of Analysis for NR-52310. The plasmid was produced in Escherichia coli and extracted.

The S glycoprotein mediates viral binding to the host angiotensin converting enzyme 2 (ACE2). This protein forms a trimer, and when bound to a host receptor allows fusion of the viral and cellular membranes. The S protein is a target for neutralizing antibodies.

NR-52310 has been qualified for use in mammalian cell transformations.

Material Provided:
Each vial contains approximately 2 µg of plasmid DNA in 10 mM Tris-HCl, 1 mM EDTA, pH 8.0. The vial should be centrifuged prior to opening.

Packaging/Storage:
NR-52310 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH:
Vector pCAGGS Containing the SARS-CoV-2, Wuhan-Hu-1 Spike Glycoprotein Gene, NR-52310.”

Biosafety Level: 1

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References:


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