Vector pCAGGS Containing the Reston Ebolavirus, Pennsylvania VP24 Gene with N-Terminal HA Tag

Catalog No. NR-49206

For research use only. Not for human use.

Contributor and Manufacturer:
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Product Description:
The VP24 membrane-associated protein gene from Reston ebolavirus (EBOV), Pennsylvania (GenBank: AF522874) was directionally subcloned into a modified pCAGGS mammalian expression vector.[1] The resulting plasmid encodes a recombinant EBOV VP24 containing an HA-tag (YPYDVPDYA) at the amino terminus. The plasmid was produced in *Escherichia coli* and extracted.

VP24 localizes to both the plasma membrane and the perinuclear region in EBOV-infected cells, and is required for assembly of the nucleocapsid.[2] It is also an antagonist of both α/β and γ interferons (IFN), blocking IFN signaling by preventing the nuclear accumulation of tyrosine-phosphorylated STAT1.[3] Reston EBOV has not been associated with human disease outbreaks, and is also a less potent inhibitor of the IFN response when compared to EBOV species that are highly pathogenic in man.[4]

NR-49206 has been qualified for use in bacterial transformations.

Material Provided:
Each vial contains approximately 50 µL of plasmid DNA. The DNA concentration and content are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:
NR-49206 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 Reston Ebolavirus, Pennsylvania VP24 Gene with N-Terminal HA Tag, NR-49206."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:
1. Basler, C. F., Personal Communication.
2. Jasenosky, L. D., and Y. Kawoaka. "Filovirus Budding." Virus Res. 106 (2004): 181-188. PubMed: 15567496.
3. Xu, W., et al. "Ebola Virus VP24 Targets a Unique NLS Binding Site on Karyopherin Alpha 5 to Selectively Compete with Nuclear Import of Phoshorylated STAT1." Cell Host Microbe. 16 (2014): 187-200. PubMed: 25121748.

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4. Kash, J. C., et al. "Global Suppression of the Host Antiviral Response by Ebola and Marburg Viruses: Increased Antagonism of the Type I Interferon Response is Associated with Enhanced Virulence." J Virol. 80 (2006): 3009-3020. PubMed: 16501110.

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