

Vaccinia Virus, Western Reserve, Recombinant Expressing Lassa Virus, Josiah Glycoprotein Precursor

Catalog No. NR-15493

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Poxviridae, Orthopoxvirus*

Agent: Vaccinia virus

Strain: rVACV-LASV GPC [Vaccinia virus (VACV), Western Reserve, recombinant expressing the glycoprotein precursor (GPC) of Lassa virus (LASV), Josiah]

Source:¹ A cDNA clone containing the entire ORF encoding the glycoprotein precursor from segment S of LASV Josiah² was inserted into the pRB21 transfer vector, bringing it under the control of a synthetic VACV early/late promoter (PSYN). Recombinant VACV was made by transfecting the transfer plasmid into CV-1 cells infected with the VACV strain vRB12.

LASV is an Arenavirus (*Arenaviridae, Arenavirus*) which is the etiologic agent of Lassa fever.³

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (BSC-40, ATCC® CRL-2761™) infected with vaccinia virus, rVACV-LASV GPC.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-15493 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Host: BSC-40 cells (ATCC® CRL-2761™)

Growth Medium: Dulbecco's Modified Eagle Medium

containing 4 mM L-glutamine, 4500 mg/L glucose, 1 mM sodium pyruvate and 1500 mg/L sodium bicarbonate, supplemented with 10% fetal bovine serum

Infection: Cells should be 95% to 100% confluent

Incubation: 2 to 4 days at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and sloughing

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Vaccinia Virus, Western Reserve, Recombinant Expressing Lassa Virus, Josiah Glycoprotein Precursor, NR-15493."

Biosafety Level: 2

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/bmb15/index.htm.

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References:

1. Kotturi, M. F., et al. "A Multivalent and Cross-Protective Vaccine Strategy Against Arenaviruses Associated with Human Disease." *PLoS Pathog.* 5 (2009): e1000695. PubMed: 20019801.
2. Auperin, D. D. and McCormick, J. B., "Nucleotide Sequence of the Lassa Virus (Josiah Strain) S Genome RNA and Amino Acid Sequence Comparison of the N and GPC proteins to Other Arenaviruses." *Virology* 168 (1989): 421-425. PubMed: 2916333.
3. Frame, J. D., et al. "Lassa Fever, a New Virus Disease of Man from West Africa. I. Clinical Description and Pathological Findings." *Am J. Trop. Med. Hyg.* 19 (1970): 670-676. PubMed: 4246571.

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