Vaccinia Virus, Western Reserve (NIAID, Tissue Culture Adapted)

Catalog No. NR-55

(Derived from ATCC® VR-1354™)

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Contributor:
ATCC®

Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Poxviridae, Orthopoxvirus*
Agent: Vaccinia virus (VACV)
Strain/Isolate: Western Reserve[1] (WR; NIAID, tissue culture adapted)
Source: Derived from the original New York City Board of Health (NYCBH) strain by intracerebral passages in mice[1,2] followed by tissue culture adaptation
Comments: The WR strain of VACV was deposited at ATCC® in 1990 by Dr. Bernard Moss and Norman Cooper, Laboratory of Viral Diseases, NIAID. The complete genomic sequence of the WR strain of VACV has been determined (GenBank: NC_006998).[3]

The WR strain of VACV has been utilized in constructing vectors for gene expression[4] and in producing viral proteins and DNA.[5]

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from African green monkey kidney (Vero) cells infected with VACV, WR (NIAID, tissue culture adapted).

Packaging/Storage:
NR-55 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen 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: Vero cells (ATCC® CCL-81™)
Growth Medium: Eagle's Minimum Essential Medium supplemented with 2% fetal bovine serum, or equivalent (lot-specific details are on the Certificate of Analysis)
Infection: Cells should be 80 to 90% confluent (not 100% confluent)
Incubation: 6 to 8 days at 37°C and 5% CO_2
Cytopathic Effect: Cell rounding and cell lysis
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Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Vaccinia Virus, Western Reserve (NIAID, Tissue Culture Adapted), NR-55."

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/bmbl5/index.htm.

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References:
1. Parker, R. F., L. H. Bronson, and R. H. Green. "Further Studies of the Infectious Unit of Vaccinia." J. Exp. Med. 74 (1941): 263–281.
2. Bronson, L. H. and R. F. Parker. "The Neutralization of

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Vaccine Virus by Immune Serum: Titration by the Intracerebral Inoculation of Mice." J. Bacteriol. 41 (1941): 56–57.
3. Esposito, J. J., et al. "Vaccinia Virus, Complete Genome." Direct submission, 24 Feb 2003. GenBank: NC_006998.
4. Mackett, M. and G. L. Smith. "Vaccinia Virus Expression Vectors." J. Gen. Virol. 67 (1986): 2067–2082. PubMed: 3531399.
5. Salzman, N. P. and E. D. Sebring. "Sequential Formation of Vaccinia Virus Proteins and Viral Deoxyribonucleic Acid Replication." J. Virol. 1 (1967): 16–23. PubMed: 4248263.
6. Smee, D. F., et al. "Characterization and Treatment of Cidofovir-Resistant Vaccinia (WR Strain) Virus Infections in Cell Culture and in Mice." Antivir. Chem. Chemother. 16 (2005): 203–211. PubMed: 16004083ATCC® is a trademark of the American Type Culture Collection.
7. Gallego-Gómez, J. C., et al. "Differences in Virus-Induced Cell Morphology and in Virus Maturation between MVA and Other Strains (WR, Ankara, and NYCBH) of Vaccinia Virus in Infected Human Cells." J. Virol. 77 (2003): 10606–10622. PubMed: 12970445.
8. Ramirez, J. C., M. M. Gherardi, and M. Esteban. "Biology of Attenuated Modified Vaccinia Virus Ankara Recombinant Vector in Mice: Virus Fate and Activation of B- and T-Cell Immune Responses in Comparison with the Western Reserve Strain and Advantages as a Vaccine." J. Virol. 74 (2000): 923–933. PubMed: 10623755.

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