

Vaccinia Virus, VV.NP-S-EGFP, Recombinant expressing Enhanced Green Fluorescent Protein

Catalog No. NR-624

This reagent is the property of the U.S. Government.

For research use only. Not for human use.

Contributor:

Bernard Moss, M.D., Ph.D., Chief, Laboratory of Viral Diseases, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland.

Product Description:

Virus Classification: *Poxviridae, Orthopoxvirus*

Agent: Vaccinia Virus

Strain: VV.NP-S-EGFP [WR recombinant expressing enhanced green fluorescent protein (EGFP)]

Preparation:¹ Recombinant vaccinia virus, VV.NP-S-EGFP, was constructed for immunological studies^{2,3} and contains a chimeric gene encoding the influenza virus nucleoprotein, the ovalbumin SIINFEKL peptide, and EGFP regulated by the P7.5 early/late promoter.⁴

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from infected human cervical cancer HeLa S3 cells (ATCC® CCL-2.2™).

Packaging/Storage:

The recombinant vaccinia virus preparation 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: HeLa S3 cells (ATCC® CCL-2.2™)

Growth Medium: Minimum Essential Medium with Earle's salts and non-essential amino acids supplemented with 2% horse serum, or equivalent

Infection: Cells should be 24 to 48 hours old and 90% confluent (not 100% confluent)

Incubation: 72 hours at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and cell lysis

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Vaccinia Virus, VV.NP-S-EGFP, Recombinant expressing Enhanced Green Fluorescent Protein, NR-624."

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm. This publication recommends that all persons working in or entering laboratory or animal care areas where activities with vaccinia virus are being conducted should have documented evidence of satisfactory vaccination within the preceding ten years.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact Peter A. Soukas, J.D. at email address soukasp@od.nih.gov and specify in the email the name of this reagent and a description of the intended use.⁵ U.S. Government contractors may need a license before first commercial sale.

References:

1. Earl, P. L., J. L. Americo, and B. Moss. "Development and Use of a Vaccinia Virus Neutralization Assay Based on

- Flow Cytometric Detection of Green Fluorescent Protein.” J. Virol. 77 (2003): 10684–10688. PubMed: 12970455.
2. Antón, L. C., et al. “Intracellular Localization of Proteasomal Degradation of Viral Antigen.” J. Cell Biol. 146 (1999): 113–124. PubMed: 10402464.
 3. Norbury, C. C., et al. “Visualizing Priming of Virus-Specific CD8⁺ T Cells by Infected Dendritic Cells *in Vivo*.” Nat. Immunol. 3 (2002): 265–271. PubMed: 11828323.
 4. Mackett, M., G. L. Smith, and B. Moss. “General Method for Production and Selection of Infectious Vaccinia Virus Recombinants Expressing Foreign Genes.” J. Virol. 49 (1984): 857–864. PubMed: 6321770.
 5. Patent Pending.

ATCC® is a trademark of the American Type Culture Collection.

