



Vaccinia virus

VR-1354™

Product Sheet

Description

Vaccinia virus strain WR is a tissue culture-adapted strain that was derived from Vaccine virus strain WR (ATCC VR-119) via multiple laboratory passages in cell culture. This preparation has been shown to serve as an effective expression vector for foreign genes and has been widely distributed and used in constructing vectors for gene expression.

This product requires a VS 16-6A permit, which can be downloaded at the [USDA website here](#). Please submit the completed permit form to SalesPermits@atcc.org with your ATCC sales order number and/or your purchase number noted in the subject line and body of the email.

Strain designation: WR (NIH TC-adapted)

Deposited As: Vaccinia virus, Orthopoxvirus

Storage Conditions

Product format: Frozen

Storage conditions: -70°C or colder

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as

guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Host: Vero (ATCC CCL-81)

Effects: cell rounding; cell sloughing; CPE

Complete medium:

EMEM (ATCC 30-2003) + 2% FBS (ATCC 30-2020)

Temperature: 37°C

Atmosphere: 95% Air, 5% CO₂

Recommendations for infection: Plate cells 24 hours prior to infection and infect

when cultures are 70-80% confluent. Remove medium and inoculate with a small volume of virus (e.g. 1 mL per 25 cm²) diluted in Virus growth medium: EMEM to provide an optimal MOI (e.g. 0.1). Adsorb 1-2 hours at 37°C in a humidified 5% CO₂ atmosphere, rocking every 20-30 minutes to redistribute inoculum. End adsorption by adding virus growth medium.

Incubation: Incubate infected culture for 2-3 days at 37°C in a humidified 5% CO₂ atmosphere, until CPE are well advance throughout.

Handling Procedures

Mycoplasma contamination: Not detected

Notes

Vaccination is recommended for lab staff manipulating vaccinia, monkeypox, or cowpox viruses. This TC-adapted WR strain of vaccinia is derived from ATCC VR-119 and has been shown to serve as an effective expression vector for foreign genes.

Key Abbreviations: °C, Degrees Celsius; CO₂, Carbon dioxide; CPE, Cytopathic effect; EMEM, Eagle's Minimum Essential Medium; FBS, Fetal bovine serum; MOI, Multiplicity of infection; NCBI, National Center for Biotechnology Information; NIH, National Institutes of Health

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Vaccinia virus (ATCC VR-1354)

References

References and other information relating to this material are available at www.atcc.org.

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