



# Vaccinia virus ts mutant

VR-3118™

## Description

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](mailto: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:** IHD-W Dts42

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -70°C or colder

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## 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.

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## 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.

Vaccination recommended for laboratory personnel working with vaccinia, monkeypox, or cowpox viruses

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.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

**Host:** BSC40 [BSC-40] (ATCC CRL-2761)

Alternate Host(s): MRC-5, BS-C-1, HeLa, LLC-MK2

**Effects:** cell death; cell enlargement; cell rounding; cell sloughing; CPE; plaque formation

**Complete medium:**

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

**Temperature:** 31°C

**Temperature effects:** Non-permissive temperature: 39.5°C; Permissive temperature: 31°C

**Atmosphere:** 95% Air, 5% CO<sub>2</sub>

**Recommendations for infection:** For best results cells should be 24 to 48 hours old and 80% - 90% confluent (not 100% confluent) for inoculation.

**Incubation:** 1-3 days at 31°C with 5% CO<sub>2</sub>

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## Handling Procedures

**Mycoplasma contamination:** Not detected

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## Notes

Selected after mutagenesis with nitrosoguanidine and replication in the presence of bromodeoxyuridine. The non-permissive incubation temperature is 39.5°C. This mutant was assigned to Dales EM categories D, inducing foci of viroplasma and DNA paracrystals in infected cells. The mutation was assigned by complementation analysis (Lackner, et al, 2003) to vaccinia map location G2, a viral positive transcription elongation factor. In the absence of G2 protein, transcripts are shorter than in the presence of G2 protein.

**Key Abbreviations:** BSC-40 cells, African green monkey kidney cells; CPE, Cytopathic effect; EMEM, Eagle's Minimum Essential Medium; FBS, Fetal bovine serum; ts, Temperature sensitive; TCID<sub>50</sub>, Median tissue culture infective dose

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Vaccinia virus ts mutant (ATCC VR-3118)

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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