Murine leukemia virus

VR-1413™

Description

Murine leukemia virus strain Rauscher is propagated in NIH/3T3 cells (ATCC CRL-1658). This strain infects mouse embryo fibroblast cultures of FV-1(b) or FV-1(n) strains and SC-1 cells.

Strain designation: Rauscher (biologically cloned)
Deposited As: Murine leukemia virus

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: NIH/3T3 (ATCC CRL-1658)
mouse cells
Effects: CPE; plaque formation
Temperature: 37°C
Recommendations for infection:

Infect cells when cultures are approximately 60% confluent. Treat with DEAE dextran (25 µg/mL) or Polybrene (8 µg/mL) for 1 hour. Wash the cells with medium or PBS. Inoculate the cell monolayer when still sub-confluent and feed with complete medium. One hour adsorption is recommended. The next day the monolayer is almost confluent. Change the medium at the end of the day. Harvest the supernatant the next morning. The virus is very labile and does not survive long at 37°C. Filter through a 45U filter and quick freeze. Refeed the cells with complete medium and repeat the harvest the next morning. Proceed until the cells eventually

slough off or enough supernatant has been harvested. The virus is cell associated, therefore at the end of the harvest, the cells can be scraped in 3-4 mL medium, frozen and thawed once and spun at 2500 RPM for 20 minutes and the supernatant added to the pool to increase titer. Pool the harvests, aliquot and quick freeze. Note: One T150 flask will produce approximately 100 mL supernatant. Titration has to be done by XC plaque assay on either NIH3T3 or SC-1 cells.

If the inoculum is persistently infected cells, grow the cells and split 1:3 until enough cells are produced. Slow freeze the cells. For titration, use the supernatant from the monolayer. Change the medium the day before , harvest the supernatant and run the XC plaque assay.

Handling Procedures

Mycoplasma contamination: Not detected

Notes

In mice, induces a variety of leukemias and lymphomas, probably depending on age and strain of mouse and sub-strain of virus. NB tropic ecotropic replication competent MuLV recovered from mouse passaged Rauscher MuLV. The virus in these cells is the same as the virus held as ATCC VR-1412.

Key Abbreviations: 3T3, Contact inhibited mouse line; DMSO, Dimethyl sulfoxide; NIH, National Institutes of Health; SC-1, feral mouse embryo cells; TCID[50], Median tissue culture infective dose

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Murine leukemia virus (ATCC VR-1413)

References

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

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