Mycobacterium tuberculosis variant *bovis*

BAA-3394™

Description

Mycobacterium tuberculosis variant bovis strain BCG Russia FQ-R gyrA D94G is an attenuated drug-resistant strain developed in 2019 by researchers at McGill University, Canada. It was engineered from the *Mycobacterium bovis* BCG Russia vaccine strain. Using recombineering, the depositor introduced a D94G mutation in the *gyrA* gene, conferring resistance to fluoroquinolones. This strain is part of a panel of seven BSL-2 BCG strains (ATCC MP-51) engineered to be mono- or dual-resistant to various anti-tuberculosis drugs. These strains serve as safe QC reagents for TB diagnostics and drug-susceptibility testing workflows.

Strain designation: BCG Russia FQ-R gyrA D94G
Deposited As: *Mycobacterium bovis*
Type strain: No

Storage Conditions

Product format: Frozen
Storage conditions: -80°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

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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

Medium:
ATCC Medium 1395: Middlebrook 7H9 broth with ADC enrichment
ATCC Medium 4120: Middlebrook 7H10 Agar + 4 ug/ml levofloxacin and 10 ug/ml isoniazid
Temperature: 37°C
Atmosphere: Aerobic

Handling Procedures

1. Open thawed vial.
2. Aseptically transfer the entire contents to a 5-6 mL tube of #1395 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary tubes.
3. Use several drops of the primary broth tube to inoculate a #4120 plate and/or #4120 agar slant.
4. Incubate at 37°C for 2-3 weeks.

Notes

ATCC Medium #1395 should be used for dilution and transfer only. ATCC Medium #4120 should be used for growth of culture to maintain fluoroquinolone resistance.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Mycobacterium tuberculosis* variant *bovis* (ATCC BAA-3394)

References

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

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Revision

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