



# ***Mycobacterium tuberculosis variant bovis***

**BAA-3397™**

## **Description**

*Mycobacterium tuberculosis* variant bovis strain BCG CFZ-R/BDQ-R Rv0678c S63R 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 an S63R mutation in the Rv0678c gene, conferring resistance to Clofazamine and Bedaquiline. 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 CFZ-R/BDQ-R Rv0678c S63R

**Deposited As:** *Mycobacterium bovis*

**Type strain:** No

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## **Storage Conditions**

**Product format:** Frozen

**Storage conditions:** -80°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**

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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.

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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**

**Medium:**

ATCC Medium 1395: Middlebrook 7H9 broth with ADC enrichment

ATCC Medium 1346: Middlebrook 7H10 Agar + 0.4 ug/ml bedaquiline

**Temperature:** 37°C

**Atmosphere:** Aerobic

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## 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 #1346 plate and/or #1346 agar slant.
  4. Incubate at 37°C for 2-3 weeks.
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## Notes

ATCC Medium #1395 should be used for dilution and transfer only. ATCC Medium #1346 should be used for growth of culture to maintain antibiotic resistance.

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## 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-3397)

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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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The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product.

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