Borrelia burgdorferi Johnson et al. emend. Baranton et al.

35210™

Description

Borrelia burgdorferi strain B31 is a whole-genome sequenced type strain that was isolated from a tick (*Ixodes dammini*). This bacterial culture has applications in infectious disease research, vector-borne disease research, and zoonotic disease research.

Strain designation: B31
Deposited As: *Borrelia burgdorferi* Johnson et al. emend. Baranton et al.
Type strain: Yes
Patent depository: This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.
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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

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

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Medium:
ATCC Medium 1914: Revised BSK medium
ATCC Medium 260: Trypticase soy agar/broth with defibrinated sheep blood
Temperature: 37°C
Atmosphere: Microaerophilic

Handling Procedures

1. Open thawed vial according to enclosed instructions or visit www.atcc.org for instructions.
2. Aseptically transfer the entire contents to a 5-6 mL tube of #1914 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes.
3. Use several drops of the primary broth tube to inoculate a #260 plate and/or agar slant.
4. Or, to obtain a biphasic culture, add several drops of the primary broth tube to a agar slant. Best practice is to incubate these slants at an angle.
5. Incubate at 37°C under microaerophilic conditions for 3-4 days. Use an anaerobe jar with an active catalyst and a microaerophilic gas generator pack or other acceptable method. All tubes and slants should be incubated with caps loosened.

Notes

Broth growth is non-turbid and is best observed via a wet mount. Organism does not grow well on agar.

Growth usually occurs after 4-5 days. Acid formation during growth will change the medium to a light or yellowish-orange color. Turbidity is not evident. Cells can be monitored under phase microscopy as long spiral rods, and their motility by the twitching movement.

Borrelia burgdorferi is a fragile, sensitive organism that must have the appropriate medium for growth. Rabbit serum is essential for the growth of this organism. Fresh medium enhances growth. Medium older than one month should not be used.

Purified genomic DNA of this strain is available as ATCC 35210D-5 and ATCC 35210DQ.

Additional information on this culture is available on the ATCC® web site at www.atcc.org.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Borrelia burgdorferi* Johnson et al. emend. Baranton et al. (ATCC 35210)

References

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

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