# *Caldicellulosiruptor morganii* Lee et al.

## TSD-469™

### Description

*Caldicellulosiruptor morganii* strain Rt8.B8 is an anaerobic, thermophilic, rod-shaped bacterial type strain with flagella and gram-positive cell walls that was isolated from a hot spring in Rotorua, New Zealand. This bacterium break down various polysaccharides, including cellulose and plant biomass, but can only utilize a few soluble carbohydrates like cellobiose. Their fermentation produces acetate, lactate, $CO_2$, and $H_2$.

**Strain designation:** Rt8.B8
**Type strain:** Yes
**Type strain description:** This culture provided to the ATCC type strain depository is neither produced nor characterized by ATCC. No technical information is available on this material. Refer to depositor for technical information on this strain.
**Technical information:** ATCC Product Experience does not have technical information on type strain deposits that are not fully characterized. Additional information can be found in the depositor's publication.

### 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 1

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

**Temperature:** 70°C
**Atmosphere:** Anaerobic gas mixture, 86% $N_2$-10% $CO_2$-4% $H_2$
**Incubation:** Atmosphere: $N_2$/ $CO_2$ (80/20 v/v mix); Temperature: 70°C-75°C; Light/dark: either; Agitation: 150 rpm.

## Handling Procedures

**Depositor-recommended growth conditions:** Routinely cultured in DSM 516 or 671 medium. Carbon source: cellobiose or cellulose. Anaerobic, degassing (3x rounds of vacuum and $N_2$ / $CO_2$ (80/20 v/v mix)) and L-cysteine HCl (0.75-1 g/L) are used to achieve anaerobic conditions. Yeast extract is not required if Wolin's vitamin solution (10x) is provided. Instead of autoclaving, 0.22 µm filter sterilization can be used for final medium. 5 g/L carbohydrate is used. Temperature: 70°C-75°C; Light/dark: Either; Agitation: 150 rpm.

## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Caldicellulosiruptor morganii* Lee et al. (ATCC TSD-469)

## References

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

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## Revision

This information on this document was last updated on 2024-11-19

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