



# *Propionibacterium freudenreichii* subsp. *shermanii* (van Niel) Holdeman and Moore

13673™

## Description

**Strain designation:** 33 [VPI 0409]

**Deposited As:** *Propionibacterium shermanii* van Niel

**Type strain:** No

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## Storage Conditions

**Product format:** Freeze-dried

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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 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.

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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 1053: Reinforced Clostridial medium (Oxoid CM149)

**Temperature:** 30°C**Atmosphere:** Anaerobic

### Handling Procedures

- 1. Open vial according to enclosed instructions.**
- 2. Under anaerobic conditions, withdraw 0.5 ml of the recommended broth from a single tube (5 to 6 ml) and rehydrate the vial contents.**
- 3. Aseptically transfer this aliquot back into the broth tube. A slant may be**

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inoculated with 0.1 ml of the cell suspension. Also, streak several blood agar plates to check for colonial morphology and purity.

**4. Incubate tubes and one blood plate under anaerobic conditions at 30°C. Incubate second agar plate aerobically at 30°C for aerobic contamination check.**

**5. Within 48 to 72 hours, growth is evident by a slightly turbid broth with smooth sediment. Colonies on the anaerobic blood agar plate are pinpoint, circular, entire, glistening, and transparent. No growth occurs on the blood agar plates incubated aerobically.**

**ANAEROBIC CONDITIONS:**

Anaerobic conditions for transfer may be obtained by either of the following:

- Use of an anaerobic gas chamber, or
- Placement of test tubes under a gassing cannula system hooked to anaerobic gas.

Anaerobic conditions for incubation may be obtained by any of the following:

- Loose screw caps on test tubes in anaerobic chamber,
- Loose screw caps on test tubes in an activated anaerobic gas pack jar, or
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Tomato juice broth and Tomato juice agar (ATCC Medium #33, shown below) were historically used in the food industry to propagate this species and may be used if desired. ATCC Medium #44, Brain Heart Infusion (Difco 0037) and Brain Heart Infusion Agar (Difco 0418) may also be used to propagate this strain.

ATCC Culture Medium #33: Tomato Juice Agar

For broth, omit the agar.

Tryptone (Difco 0123), 10.0 g

Yeast extract, 10.0 g

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Filtered tomato juice (pH 7.0), 200.0 ml

Agar, 11.0 g

*Adjust pH to 7.2.*

*Autoclave at 121°C for 15 min.*

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Propionibacterium freudenreichii* subsp. *shermanii* (van Niel) Holdeman and Moore (ATCC 13673)

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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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**Contact Information**

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

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