



# ***Bacillus spizizenii*** **(Nakamura et al.)** **Dunlap et al.**

**19659-MINI-PACK™**

## **Description**

ATCC® 19659-MINI-PACK™ consists of 6 ready-to-use vials of ATCC® 19659™ frozen in 200 µL of glycerol stock, eliminating the need to rehydrate and culture the strain prior to use. Each vial is provided with a 2-D barcode for easy storage and tracking, as well as peel-off labels for fast and reliable recordkeeping.

**Strain designation:** PRD 66 [IFO 13722]

**Deposited As:** *Bacillus subtilis* (Ehrenberg) Cohn

**Type strain:** No

**Shipping information:** 6 ready-to-use vials containing the strain in glycerol stock

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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 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*

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(*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 3: Nutrient agar or nutrient broth

**Temperature:** 30°C

**Atmosphere:** Aerobic

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## **Handling Procedures**

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Frozen mini-cryovials packed in dry ice should either be thawed immediately for use or stored at or below -70°C until the expiration date printed on the label. Storage at -20°C is acceptable for up to 1 year.

1. Thaw the bacterial strain upright using gentle agitation in a 25°C to 30°C water bath. Thawing will be rapid; approximately 2-3 minutes or until all ice crystals have melted.
2. Immediately after thawing, wipe down the ampoule with 70% ethanol and aseptically transfer the entire contents to a 5-6 mL tube of #3 broth or directly inoculate a #3 plate and/or #3 agar slant.
3. Discard the empty vial. Do not refreeze any unused portion as it will result in a loss of viability.
4. Incubate at 30°C for 24 hours.

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## **Notes**

Growth is poor in broth incubated statically but heavy on agar. 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: *Bacillus spizizenii* (Nakamura et al.) Dunlap et al. (ATCC 19659-MINI-PACK)

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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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## **Warranty**

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. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

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