

Bacillus subtilis (Ehrenberg) Cohn

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Description

Bacillus subtilis strain Marburg is a whole-genome sequenced bacterial type strain that can be used in bacterial resistance testing, sterility assurance, and blood screening for phenylketonuria. This strain is also known to produce isoprene.

- **Strain designation** Marburg strain [ATCC 6051-U, CCM 2216, CCRC 10255, CCUG 163B, CFBP 4228, CIP 52.65, DSM 10, IAM 12118, IFO 12210, IFO 13719, IFO 16412, IMET 10758, JCM 1465, LMG 7135, NCAIM B.01095, NCCB 32009, NCCB 53016, NCCB 70064, NCFB 1769, NCIB 3610, NCTC 3610, NRR
- **Deposited As** *Bacillus subtilis* (Ehrenberg) Cohn
- **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.
- **Technical information** ATCC Technical Services does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

Storage Conditions

- **Product format** Freeze-dried
- **Storage conditions** 2°C to 8°C

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.

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

- **Medium**
[ATCC Medium 3: Nutrient agar or nutrient broth](#)
- **Temperature** 30°C
- **Atmosphere** Aerobic

Handling Procedures

- 1. Open the freeze-dried vial.
- 2. Using a single tube of #3 broth (5 to 6 mL), withdraw approximately 0.5 to 1.0 mL with a Pasteur or 1.0 mL pipette. Rehydrate the entire pellet.
- 3. Aseptically transfer this aliquot back into the broth tube. Mix well.
- 4. Use several drops of the suspension to inoculate a #3 slant, and/or plate.

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5. Incubate all tubes and plates at 30°C for 24 hours.

Notes

This item has two colony types and both have been identified by 16S sequencing to be identical and consistent with the genus and species.

Growth is observed after 24 hours. Growth may be poor in broth incubated statically, but heavy on agar.

This strain has been cited for use in bacterial resistance testing of latex paint (Machemer WE, 1979), blood screening for phenylketonuria (Guthrie R, 1961), and accumulation of metal ions from aqueous solutions (Brierley JA *et al.*, 1990). This strain has also been cited as able to produce isoprene (Kuzma J *et al.*, 1995).

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: *Bacillus subtilis* (Ehrenberg) Cohn (ATCC 6051)

References

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

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Product Sheet

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