Mariprofundus ferrooxydans Emerson et al.

BAA-1020™

Description

Type strain
Strain designation: PV-1
Type strain: Yes

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

Medium:
ATCC Medium 2991: Iron Oxidizer Broth
Temperature: 26°C
Atmosphere: Microaerophilic

Handling Procedures

1. Prior to opening the vial, reduce the anaerobic #2991 media with 80% N_2-20% CO_2. Add 200 µL of 100 mM $FeCl_2$ and 4 mL of filtered air.
2. Open thawed vial according to enclosed instructions or visit www.atcc.org for instructions.
3. Aseptically transfer the entire contents to the #2991 broth. Note: it is not necessary to re-gas with the 80% N_2-20% CO_2. This is only done prior to

inoculation.
4. Use 0.1mL of the broth culture to inoculate a #260 plate for a purity check.
5. The broth culture needs to be fed daily with 200 µL mM $FeCl_2$ and 4 mL of filtered air.
6. Incubate at 26°C for 4-10 days.

Notes

Growth should be checked by epifluorescent microscopy five days after inoculation. Syto 13 (Molecular Probes, Eugene, OR) provides good penetration of the Fe-oxides and bright fluorescence. A 0.25 mM stock solution is prepared in sterile d-H_2O that is then diluted 1:5 with the bacterial culture. Cells are bent rods, approximately 0.5 um in diameter, and motile during exponential growth.

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: *Mariprofundus ferrooxydans* Emerson et al. (ATCC BAA-1020)

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 2024-10-25

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 or contact your local distributor