Geobacter metallireducens Lovley et al.

53774™

Description

Geobacter metallireducens strain GS-15 [DSM 7210] is a whole-genome sequenced bacterial type strain that was isolated from freshwater sediment in Maryland.

Strain designation: GS-15 [DSM 7210]

Deposited As: *Geobacter metallireducens* Lovley et al.

Type strain: Yes

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Patent number:

4,886,752

Technical information: ATCC Product Experience 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: 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

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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.

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

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Medium:
ATCC Medium 1768: Geobacter metallireducens medium
Temperature: 30°C
Atmosphere: 80% N_2, 20% CO_2

Handling Procedures

1. Open thawed vial.
2. Under anaerobic conditions aseptically transfer the entire contents to a 5-6 mL tube of #1768 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes. Best practice dictates the use of pre-reduced media.
3. Use several drops of the primary broth tube to inoculate a #1768 plate and/or #1768 agar slant.
4. Incubate in an anaerobic atmosphere at 30°C for 3-7 days. Incubate one agar plate aerobically at 37°C to check for contamination.
5. Growth is evident by slight turbidity in the broth. The medium starts out light orange and then turns darker brown. When this occurs, it should be transferred. As the culture ages, it will eventually lose all the pigmentation. Once the pigment is lost, it is less likely that the cells will survive transfer.

ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by the use of an anaerobic gas chamber or placement of test tubes under a gassing cannula system connected to anaerobic gas.

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

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

Notes

This organism grows well in broth but not on agar. Media must contain Ferric citrate

to support 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: *Geobacter metallireducens* Lovley et al. (ATCC 53774)

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 2024-10-24

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