Description

Designation: NCIB 8303 [DSM 644, Hildenborough]
Deposited Name: Desulfovibrio vulgaris subsp. vulgaris Postgate and Campbell
Product Description: Type strain. Genome sequencing strain. Bacteriophage induction. Reduction of tetravalent uranium.

Propagation

Medium
ATCC® Medium 1249: Modified Baar's medium for sulfate reducers

Growth Conditions
Temperature: 30°C
Atmosphere: Anaerobic

Propagation Procedure
1. If the medium is not freshly prepared (less than 1 week), then it is a good idea to replace the head space with a fresh anaerobic gas such as 100% N₂. A reducing agent should then be added to insure that anaerobic conditions are obtained. It is suggested that a 3% stock solution of cysteine be added, 0.1 mL for each 5-10 mL, to each tube(s) of medium. Once that reducing agent has been added, let the tube(s) sit for a minimum of 1 hour before inoculation.
2. Open vial according to enclosed instructions.
3. Perform all steps under anaerobic conditions. (see below)
4. Aseptically transfer 0.5 mL of Medium #1249 to the vial and rehydrate the entire freeze-dried pellet. Transfer the suspension back into the tube of broth. Inoculate a plate of non-selective medium with 0.1 of the culture.
5. Seal the test tube with a rubber stopper and incubate anaerobically at 30°C. Incubate the plate(s) aerobically as a purity check.
6. After two or three days, growth should be evident as indicated by turbidity throughout the broth. Once growth has been established, the culture should be transferred to fresh broth every 24 to 48 hours.
7. This culture is very sensitive to oxygen. Therefore, steps should be taken to avoid exposure to oxygen. When the culture exhibits good growth, it will remain viable for up to 1 week if stored at 4°C under anaerobic conditions.

ANAEROBIC CONDITIONS:
Aerobic conditions for transfer may be obtained by either of the following:
- Use of an anaerobic gas chamber.
- Placement of test tubes under a gassing cannula system hooked to anaerobic gas.
Aerobic 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.
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Notes

Use of a shaking incubator improves growth.
Anaerobe Systems PRAS Brucella Blood Plates (AS-111 or AS-141) can be used to analyze colony morphology and purity.
A black precipitate may be observed because of the breakdown of ferrous ammonium sulfate. Ferrous ammonium sulfate is not required for this organism to grow.
Always use freshly prepared pre-reduced media or pre-reduced media that has been previously prepared but stored under anaerobic conditions. Resazurin in the media is a color indicator for anaerobic conditions. Observance of pink color in medium before use or during incubation shows anaerobic conditions have not been met and oxidation has occurred. Medium should be discarded.
Purified genomic DNA of this strain is available as ATCC® 29579D-5™.
Additional information on this culture is available on the ATCC® web site at www.atcc.org.

References

References and other information relating to this product are available online at www.atcc.org.
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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

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