Sulfurihydrogenibium subterraneum Takai et al.

BAA-562™

Description

Strain designation: HGMK-1 [DSM 15120, JCM 11477]
Deposited As: *Sulfohydrogenobium subterraneus*
Type strain: Yes

Storage Conditions

Product format: Freeze-dried

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 2346: mjANHOX-NO3 medium supplemented with thiosulfate
Temperature: 60°C
Atmosphere: Anaerobic

Handling Procedures

1. Sterilize the top of the Balch tube by spraying it with 70% ethanol and then flame the top.

2. If needed exchange the gas in the test tube for 100% N_2, 80% N_2-20%CO_2. When thiosulfate is the electron donor the culture can be grown under aerobic conditions (N_2-CO_2-O_2, 65:15:20).

3. When the Balch tube is ready to inoculate, open the vial according to enclosed

instructions.

4. For inoculation, use a 1.0 ml syringe tipped with 22 gauge needle. Withdraw 0.5 ml of Medium #2346 and use this to rehydrate the freeze-dried pellet. Transfer the rehydrated cell suspension back to a tube of #2346 broth and incubate at 60ºC. Plate 0.1 ml of the inoculated culture onto a non-selective medium and incubate aerobically at 37ºC. Inoculate a nonselective anaerobic and aerobic broth and incubate at 60ºC

5. Growth should be detected in the #2346 broth within 24 to 48 hours. There should be no growth detected on the aerobic plate. There should be no growth in the nonselective aerobic or anaerobic broth.

Notes

With hydrogen or thiosulfate as the electron donor this strain was able to utilize molecular oxygen, nitrate, soluble ferric citrate, insoluble ferrihydrite iron (III), arsenate, selenate and selenite.

Growth will be detected within 24 to 48 hours by turbidity that settles at the bottom of the test tube. The turbidity of the culture increases form 24 to 48 hours but the cell density does not.

The cells are Gram negative motile rods with a polar flagella. The cells are typically in short chains.

Once growth has been established, the culture should be transferred every 24 to 48 hours when maintained at 60ºC. The culture can be maintained at 4ºC for up to 1 week..

Additional information on this culture is available on the ATCC web site at www.atcc.org.

Resolution: 1000X

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Sulfurihydrogenibium subterraneum* Takai et al. (ATCC BAA-562)

References

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

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