Thermoproteus tenax Zillig and Stetter

35583™

Description

Strain designation: Kra 1 [DSM 2078]
Deposited As: *Thermoproteus tenax* Zillig and Stetter
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 1538: Thermoproteus medium
Temperature: 85-88°C
Atmosphere: Anaerobic

Handling Procedures

1. Have a stream of oxygen free gas flowing over the frozen culture while it thaws at room temperature.
2. Perform all steps under anaerobic conditions.
3. Aseptically transfer the thawed culture to a broth tube of medium #1538 (5 to 6 ml). Inoculate a second tube of broth with 0.5 ml of the suspension. Streak a plate of a non-selective medium and incubate aerobically to check purity.

4. After two to three days, growth should be evident as indicated by turbidity which settles to the bottom of the test tube and is easily resuspended when the test tube is inverted. When examined microscopically, the cells appear as rods, often and sometimes highly branched, without septa. In growing, culture often showing spheres protruding laterally from ends and from sharp bends.
5. Once growth has been detected, the culture should be transferred to fresh broth(s). Growth should be detected within 24-48 hours.
6. This culture is very sensitive to oxygen, all steps should be taken to avoid exposure to oxygen (see anaerobic techniques below). It was found that this culture is also sensitive to the cryoprotectant, therefore growth may be better in the secondary tubes.

ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by either of the following:

- Use of an anaerobic gas chamber, or
- Placement of test tubes under a gassing cannula system hooked to anaerobic gas.

Anaerobic 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, or
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Notes

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.

Additional information on this culture is available on the ATCC web site at

www.atcc.org.

While every effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

ATCC recommends that individuals contemplating commercial use of any culture first contact the originating investigator to negotiate an agreement. Third party distribution of this culture is discouraged, since this practice has resulted in the unintentional spreading of contaminated cultures

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Thermoproteus tenax* Zillig and Stetter (ATCC 35583)

References

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

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Revision

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