Product Sheet

Tetrahymena thermophila
(ATCC® 30377™)

Please read this FIRST

Biosafety Level 1

Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Tetrahymena thermophila (ATCC® 30377™)

Description

Strain Designation: A-17682a
Deposited Name: Tetrahymena thermophila Nanney and McCoy
Depositor: EM Simon, DL Nanney
Isolation: derived from WH-6 X WH-14, Urbana, IL, 1968
Genotype: AAABBAASSSF

Growth Conditions

Max Temperature: 25.0°C
Min Temperature: 18.0°C
Duration: axenic

Medium

ATCC® Medium 357: Tetrahymena medium
ATCC® Medium 357: Tetrahymena medium
ATCC® Medium 383: Haskins agar for Tetrahymena

Instructions for Complete Medium

ATCC Medium 357 is used for short-term cultivation. (ATCC medium 1034 can also be used for short-term cultivation and is available in a freeze-dried format from ATCC; contact sales for details). ATCC Medium 383 is used for long-term cultivation.

RM-9 Media for cryopreservation of Tetrahymena

Proteose Peptone (Difco 0120) 5.0 g
Tryptone 5.0 g
K2HPO4 0.2 g
Glucose 1.0 g
Liver extract 0.1 g
Glass distilled water 1.0 L

Dissolve components in glass distilled H2O and autoclave.

Dry Salt Solution

0.1 M NaH2PO4 · 3H2O 10.0 ml
0.1 M NaH2PO4 · 7H2O 10.0 ml
0.1 M Sodium citrate · 2H2O 15.0 ml
0.1 M CaCl2 · 2H2O 15.0 ml
Distilled water 950.0 ml

Add the first 3 components to the distilled H2O and mix thoroughly.

Add the CaCl2 solution and mix thoroughly.

(Avoiding the solutions in the order indicated will avoid the precipitation of Ca salts.)
1. Transfer tetrahymena from usual growth medium to RM-9 medium and allow to grow to near peak density.
2. Harvest cells from a culture by centrifugation at 300 x g for 2 min.
3. Adjust concentration of cells to 2 x 10^6/ml in fresh medium.
4. While cells are centrifuging, prepare a 22% (v/v) sterile solution of sterile DMSO in fresh medium.
   a) Add 2.2 ml of DMSO to an ice cold 20 x 150 mm screw-capped test tube;
   b) Place the tube on ice and allow the DMSO to solidify (~5 min) and then add 7.8 ml of ice cold medium;
   c) Invert several times to dissolve the DMSO;
   d) Allow to warm to room temperature.
5. Add a volume of the DMSO solution equal to the cell suspension volume but add in 3 equal aliquots at 2 min intervals. Thus, the final concentration of the preparation will equal 11% (v/v) DMSO and 10^6 cells/ml.
6. Dispense in 0.5 ml aliquots into 1.0 - 2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
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**References and other information relating to this product are available online at** [www.atcc.org](http://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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