Product Sheet

Acanthamoeba lenticulata (ATCC® 30841™)

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: Acanthamoeba lenticulata (ATCC® 30841™)

Strain Designation: PD2S [AC-006]
Deposited Name: Acanthamoeba lenticulata Molet and Ermolieff-Braun
Depositor: B Molet
Isolation: reisolated after passage through mouse, swimming pool, Strasbourg, France, 1976

Propagation

Growth Conditions

Temperature: 25.0°C
Duration: axenic

Protocol: ATCCNO: 30010 SPEC: This strain is distributed as a freeze-dried preparation. See the general procedures for opening a freeze-dried vial. Aseptically add 0.5 ml of ice cold medium containing 12% (w/v) sucrose to the freeze-dried inner shell vial. Once the culture is completely rehydrated, aseptically add 1 ml of ATCC medium 712 and distribute to a 16 X 125 mm plastic screw-capped test tube or a T-25 tissue culture flask containing 5.0 ml of the same medium. Incubate the test tube culture horizontally with the cap on tight. Trophozoites should be evident in 1-5 days.

Medium

ATCC® Medium 712: PYG w/ Additives

Instructions for Complete Medium

ATCC Medium 712

Culture Maintenance

1. When the culture is at or near peak density, vigorously agitate the culture.
2. Transfer approximately 0.25 ml to a fresh tube or flask containing 5 ml of fresh ATCC medium 712.
3. Screw the caps on tightly and incubate at 25°C (incubate test tubes at a 15° horizontal slant).
4. The amoebae will form an almost continuous sheet of cells on the bottom surface of the flask or test tube. Repeat steps 1-3 at 10-14 d intervals.

Cryopreservation

1. To achieve the best results set up cultures with several different inocula (e.g. 0.25 ml, 0.5 ml, 1.0 ml). Harvest cultures and pool when the culture that received the lowest inoculum is at or near peak density.
2. If the cell concentration exceeds the required level do not centrifuge, but adjust the concentration to between 2 x 10⁶ and 2 x 10⁷ cells/ml with fresh medium. If the concentration is too low, centrifuge at 600 x g for 5 min and resuspend the pellet in the volume of fresh medium required to yield the desired concentration.
3. While cells are centrifuging prepare a 15% (v/v) solution of sterile DMSO as follows: Add the required volume of DMSO to a glass screw-capped test tube and place it in an ice bath. Allow the DMSO to solidify.
4. Mix the cell preparation and the DMSO in equal portions. Thus, the final concentration will be between 10^6 and 10^7 cells/ml and 7.5% (v/v) DMSO. The time from the mixing of the cell preparation and DMSO stock solution before the freezing process is begun should be no less than 15 min and no longer than 30 min.
5. Dispense in 0.5 ml aliquots into 1.0 - 2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
6. Place the vials in a controlled rate freezing unit. From room temperature cool at -1°C/min to -40°C. If the freezing unit can compensate for the heat of fusion, maintain rate at -1°C/min through the heat of fusion. At -40°C plunge into liquid nitrogen. Alternatively, place the vials in a Nalgene 1°C freezing apparatus. Place the apparatus at -80°C for 1.5 to 2 hours and then plunge ampules into liquid nitrogen. (The cooling rate in this apparatus is approximately -1°C/min.)
7. The frozen preparations are stored in either the vapor or liquid phase of a nitrogen freezer.
8. To establish a culture from the frozen state place an ampule in a water bath set at 35°C (2-3 min). Immerse the vial just sufficient to cover the frozen material. Do not agitate the vial.
9. Immediately after thawing, aseptically remove the contents of the ampule and inoculate into 5 ml of fresh ATCC medium 712 in a T-25 tissue culture flask or plastic 16 x 125 mm screw-capped test tube. Incubate at
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Additional information on this culture is available on the ATCC web site at www.atcc.org

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