ATCC

Product Sheet

Leishmania donovani (ATCC® 30503™)

Please read this FIRST

Biosafety Level
2

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: *Leishmania donovani* (ATCC® 30503™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Strain Designation: Khartoum (kh)
Deposited Name: *Leishmania donovani* (Laveran and Mesnil) Ross
Depositor: R Herman
Isolation:
human, Khartoum, Sudan, 1943

Propagation

Growth Conditions
Temperature: 25.0°C
Duration: axenic
Protocol: ATCCNO: 11745 SPEC: See general instructions for thawing and storage of frozen material before proceeding. Add thawed contents to a single 16 x 125 mm glass screw-capped test tube of the appropriate medium. Incubate the culture vertically with the cap screwed on tightly. It is essential to establish cultures initially in small volumes. Once established, the culture can be scaled up to larger volumes. Vigorously agitate the culture and aseptically transfer 0.1 ml of culture to a fresh tube of medium weekly.

Medium
ATCC® Medium 811: Leishmania medium

Culture Maintenance
1. When the culture has reached or is near peak density, invert tube 10 times and aseptically transfer a drop from a Pasteur pipette (0.05 ml) to another test tube of fresh ATCC medium 807 or 811.
2. Incubate the culture vertically at 25°C with the cap screwed on tightly.
3. Transfer the culture every 3-4 days as described in step 1. The transfer interval will depend on the quantity of the inoculum and the quality of the medium. This should be empirically determined by examining the culture on a daily basis until the growth cycle has stabilized.

Cryopreservation

1. Harvest cells from cultures that are at or near peak density. Aseptically transfer the broth overlay to a plastic centrifuge tube and adjust the concentration of cells to 2 x 10^7/ml in fresh medium. If necessary, cells may be concentrated by centrifugation at 800 x g for 5 min.
2. Prepare a 10% (v/v) solution of sterile DMSO in fresh medium. Cool on ice.
3. Mix the cell preparation and the DMSO solution in equal portions. The final concentration will be 10^7 cells/ml and 5% (v/v) DMSO. The time from the mixing of the cell preparation and DMSO solution to the start of the freezing process should be no less than 15 min and no longer than 30 min.
4. Dispense in 0.5 ml aliquots into 1.0 - 2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
5. 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.)
6. The frozen preparations should be stored in either the vapor or liquid phase of a nitrogen refrigerator. Frozen preparations stored below -130°C are stabile indefinitely. Those stored at temperatures above -130°C are progressively less stabile as the storage temperature is elevated. Vials should not be stored above -70°C.
7. To establish a culture from the frozen state place an ampule in a water bath set at 35°C. Immerse the vial just to a level just above the surface of the frozen material. Do not agitate the vial.
8. Do not leave in the water bath. Immediately after thawing aseptically remove the contents of the ampule and inoculate a 16 x 125 mm screw-capped test tube of fresh ATCC medium 807 or 811.
9. Incubate the culture vertically at 25°C. Observe the culture daily and transfer when numerous trophozoites are observed.

References

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

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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.

ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at www.atcc.org

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

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