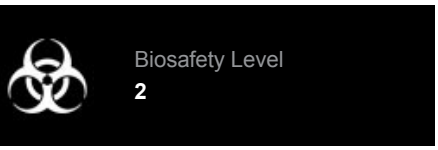
ATCC

Product Sheet

Plasmodium falciparum (ATCC® 50005™)

Please read this FIRST



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: *Plasmodium falciparum* (ATCC® 50005™)

Description

Strain Designation: FCR-3/Gambia Subline F-86
Deposited Name: *Plasmodium falciparum* Welch
Depositor: W Trager
Isolation:
derived from ATCC 30932

Propagation

Growth Conditions
Temperature: 37.0°C
Growth condition: in vitro culture in human erythrocytes. Consult product sheet for protocol.

Medium
ATCC® Medium 2196: Malaria medium, complete

Instructions for Complete Medium
Media: ATCC Medium 2196 and type O blood

Culture Maintenance
Changing of the culture medium every 24 hours is required for a malaria-infected erythrocyte culture. Add washed, uninfected red blood cells (RBCs) to 1-3% haematocrit, and maintain parasitemia at 2-3% for continuous culture.

1. Remove flask with infected culture from 37ºC incubator and place onto flask warmer in biological safety hood.
2. Carefully aspirate the medium with a sterile unplugged Pasteur pipet attached to a vacuum line. Remove as much fluid as possible without taking the cells.
3. Aseptically add sterile warm (37ºC) completed medium to the flask (~8ml to a T-25, ~25ml to a T-75, etc.). Mix and smear as required to determine parasitemia (see below).
4. Add washed RBCs as necessary to obtain desired haematocrit and parasitemia.
5. Gently mix and aerate culture with gas mixture of 5% CO_2, 5% O_2 and 90% N_2 using a sterile, cotton plugged Pasteur pipet. Quickly tighten cap of the flask and place in 37ºC incubator until the next medium change.

Cryopreservation

CRYOPRESERVATION:
Only young cells (rings) can be frozen in glycerolyte medium** because their membranes are more robust.

1. Centrifuge ring-stage culture for 5 mins. at 1000 x g in 50 ml centrifuge tube.
2. Aspirate supernatant using sterile Pasteur pipet.
3. Resuspend pellet gently in remaining supernatant.
4. Slowly add 5 volumes of glycerolyte medium to 3 volumes pellet dropwise via a syringe as follows:
   A. Add the first volume of glycerolyte and allow the tube to stand for 5 mins. at room temperature.
   B. Add the remaining 4 volumes of glycerolyte and gently agitate.
5. Aliquot mixture into Nunc screw-capped freezing vials and place in a Nalgene 1C cooling apparatus. Place the apparatus at -80°C overnight and then plunge ampules into liquid nitrogen. (The cooling rate in this apparatus is approximately -1°C/min.).
6. Plunge vials into liquid nitrogen (-196ºC) the next day and store in liquid nitrogen or liquid nitrogen vapor.

References

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

Biosafety Level: 2

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.

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

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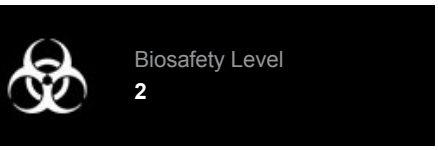

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ATCC Warranty

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.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

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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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