ATCC

Product Sheet

293T/17 SF [HEK 293T/17 SF] (ATCC® ACS-4500™)

Please read this FIRST

Storage Temp.
liquid nitrogen vapor phase

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.

Complete Growth Medium

The base medium for this cell line is BalanCD HEK293 (Irvine Scientific cat# 91165). To make the complete medium, add to 475 mL of the base medium:

- 20 mL of 200 mM L-glutamine (ATCC 30-2214) for a final concentration of 8 mM
- 5 mL of ITS (Corning cat# 25-800-CR) for a final concentration of 10 µL/mL
  This medium is formulated for use with a 5-8% CO_2 air atmosphere.

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: 293T/17 SF [HEK 293T/17 SF] (ATCC® ACS-4500™)

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

Organism: *Homo sapiens*, human
Tissue: Kidney
Morphology: Lymphocyte-like; single cells to small aggregates
Growth Properties: suspension

Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials 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 vessel exploding or blowing off its cap with dangerous force creating flying debris.

Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Handling Procedure for Frozen Cells

To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If, upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at ?80°C. Storage at 80°C will result in loss of viability.
1. Rapidly thaw cells by placing the cryovial in a 37°C water bath, swirling gently. Remove the cryovial from the water bath when only a few ice crystals are remaining.
2. Sterilize the cryovial by rinsing with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
3. Using a 1-mL or 5-mL pipette, transfer thawed cells drop-wise into 9 mL pre-warmed complete growth medium in a 15-mL centrifuge tube. Gently pipette the cells up and down several times to mix thoroughly.
4. Centrifuge the cell suspension at 170 × *g* for 5 minutes.
5. Carefully aspirate the supernatant and discard, leaving the cell pellet.
6. Gently resuspend the cell pellet in fresh pre-warmed complete growth medium, and transfer cell suspension into a filtered cap/non-baffled shaker flask. Cells should be seeded at a density of 5 x 10^5 cells/mL.
7. Place the flask in a 37°C shaking incubator (125 to 130 rpm) with 5-8% CO_2. **Note:** Viability after initial thaw is generally lower; however, after 2-3 passages, the cells are fully recovered and reach optimal viability.

Subculturing Procedure

Subculture cells at log phase (when cells are ready for passaging, i.e., every 2-3 days, and are approximately 2 x 10^6 cells/mL). Pre-warm fresh growth medium prior to use. Swirl the flask gently to evenly distribute cells in medium. Remove a small volume of cells from the flask and perform cell count.
1. Seed at 5x10^5 cells/mL for a 2 day subculture and 4x10^5 cells/mL for a 3 day subculture (weekend)
2. To maintain high cell viability, prior to seeding, centrifuge cells for 5min at 170x g
3. Discard spent media and re-suspend cell pellet in pre-warmed fresh complete growth media
4. Pipette cells gently to break aggregates
Note: Slight aggregates may be observed, but they are easily dispersed with minimal pipetting and do not impact the performance of the cell line. Alternately, appropriate amount of fresh media maybe added directly into the flask to adjust cell seeding density. However, cell viability might be slightly compromised and decreased by 5%.

Cryopreservation Medium

Prepare 2X freezing medium: Complete Growth Medium supplemented with 15% (v/v) DMSO.

Comments

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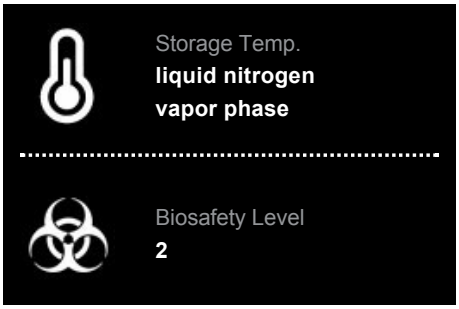

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The cells constitutively express the temperature-sensitive SV40 T antigen that allows for episomal replication of transfected plasmids containing the SV40 origin of replication. This feature increases protein expression levels by permitting more plasmid copies to persist in the transiently transfected cells. Expression vectors containing the human cytomegalovirus (CMV) promoter have been shown to achieve high levels of protein expression in 293T/17 cell line.

Transient transfections can be performed at small and large scale. High transfection efficiencies and protein yields have been demonstrated in this cell line. ATCC recommends passaging thawed cells at least twice prior to transfection to ensure optimal viability. Prior to transfection (24 hours), seed cells at a density of 8 x 10^5 cells/mL.

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.

ATCC Warranty

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. 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 product. 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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