HUVEC/TERT 2

CRL-4053™

Description

HUVEC/TERT 2 is an hTERT-immortalized endothelial cell that was isolated from the vascular endothelium of a White female patient. This cell line was deposited by Evercyte in 2011 and can be used in drug development research.

Organism: *Homo sapiens*, human
Cell Type: endothelial cell
Tissue: Umbilical cord; Vascular endothelium
Age: neonate
Gender: Female
Morphology: Cobblestone appearance with large dark nuclei
Growth properties: Adherent
Disease: Normal
Cells per vial: Approximately ≥ 1.2 x 10^6
Volume: 1.0 mL

Storage Conditions

Product format: Frozen
Storage conditions: Vapor phase of liquid nitrogen

Intended Use

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

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

All tissues used for isolation are obtained under informed consent and conform to HIPAA regulations to protect the privacy of the donor's Personally Identifiable Information. It is best to use caution when handling any human cells. We recommend that all human cells be accorded the same level of biosafety consideration as cells known to carry Human immunodeficiency virus (HIV) and other bloodborne pathogens. With infectious virus assays or viral antigen assays, even a negative test result may not exclude the possibility of the existence of a latent viral genome or infectious viral particles below the lower limit of detection of that assay.

ATCC recommends that appropriate safety procedures be used when handling all primary cells and cell lines, especially those derived from human or other primate material. Handle as a potentially biohazardous material using universal precautions. Cells derived from primate lymphoid tissue may fall under the regulations of 29 CFR 1910.1030 Bloodborne Pathogens.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may 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 vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Handling Procedures

Unpacking and 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.

Complete medium: The base medium for this cell line is Vascular Cell Basal Medium (ATCC® PCS-100-030), supplemented with Vascular Endothelial Cell Growth Kit-VEGF (ATCC® PCS-100-041). Alternatively, the Vascular Cell Basal Medium can be supplemented with Endothelial Cell Growth Kit-BBE (ATCC® PCS-100-040).

Handling Procedure: To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt.

If storage of the frozen culture is necessary upon arrival, store the vial in liquid nitrogen vapor phase and NOT

at –70°C. Storage at –70°C will result in loss of viability.

1. Prepare a 25 cm^2 or a 75 cm^2 culture flask containing 8.0 x 10^3 to 10.0 x 10^3 viable cells/cm2 in the recommended complete culture medium. Prior to the addition of the vial contents, the vessel containing the growth medium should be placed in the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6) and to avoid excessive alkalinity of the medium during recovery of the cells.
2. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
3. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All operations from this point on should be carried out under strict aseptic conditions.
4. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge the cell suspension at approximately 125 x g for 5 to 7 minutes.

5. Discard the supernatant and resuspend the cells in fresh growth medium (see the batch-specific information for the recommended dilution ratio). Add this suspension to the prepared culture vessel.
6. Incubate the culture at 37°C in a suitable incubator.

Subculturing procedure: Every 3-4 days at 8000 cells/cm^2 Volumes used in this protocol are for 75 cm^2 flasks; proportionally reduce or increase amount of dissociation solutions for culture vessels of other sizes.

1. Remove and discard spent medium.
2. Briefly rinse with 1X PBS (ATCC 30-2200), 1 mL/25 cm2 and discard rinse solution.
3. Add trypsin for primary cells (ATCC PCS-999-003), 1 mL/25 cm^2. Place at 37ºC for 3-4 minutes, until 90% of the cells have detached.
4. Rapflask gently to ensure cells are detached. Add 2% FBS in D-PBS, 1 mL/25 cm^2 to neutralize trypsin.
5. Centrifuge cells at 150 x g for 5 min at room temperature.
6. Remove supernatant. Resuspend pellet in 5.0 to 8.0 mL Complete Growth Medium.
7. Count cells, and seed 8.0 x 10^3 to 10.0 x 10^3 viable cells/cm^2 to new culture vessels.

Medium Renewal: Every 2-3 days.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: HUVEC/TERT 2 (ATCC CRL-4053)

References

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

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Revision

This information on this document was last updated on 2024-06-15

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