TALL-104

CRL-11386™

Description

TALL-104 is a T lymphoblast cell line that was established from the peripheral blood of a two-year-old male child in relapse with T-ALL. Applications include immune system disorder, immunology, and immuno-oncology research.

Organism: *Homo sapiens*, human
Cell Type: T lymphoblast
Tissue: Peripheral blood
Age: 2 years
Gender: Male
Morphology: lymphoblast
Growth properties: Adherent and/or suspension
Disease: Acute lymphoblastic leukemia ALL
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Patent number:
5,272,082
Technical information: ATCC Product Experience does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

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 1

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.

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.

Growth Conditions

Temperature: 37°C
Atmosphere: 95% Air, 5% CO_2

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 RPMI-1640 (ATCC 30-2001). To make the complete growth medium, add the following components to 400 mL of the base medium:

- 100 mL Fetal Bovine Serum (ATCC 30-2020) to a final concentration of 20%.
- 1 vial IL-2 IS (10 µg), premium grade (Miltenyi cat# 130-097744*). Contents of vial can be rehydrated with 1 mL of culture medium and then added directly to the bottle of formulated medium.

***Note:** The biological activity of cat# 130-097-744 is at least 5.0 x 10^6 units/mg but may be as high as 9.0 x 10^6 units/mg per Miltenyi. This may cause the final formulation of IL-2 to be greater than 100 units/mL
Note: Complete culture medium has a recommended shelf life of one month when being stored at 2-8°C. Vendor does not provide stability information, but suggested material should be good for up to a month after formulation.
Note: IL-2 rapidly loses its potency in medium, it is important that fresh IL-2 be used. Successful growth of this cell line is very dependent upon the quality of IL-2 used in the growth medium. ATCC recommends using the highest quality IL-2 available.

Handling Procedure:

To insure 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 -70°C. Storage at -70°C will result in loss of viability.

1. 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).

2. 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 of the operations from this point on should be carried out under strict aseptic conditions.
3. Product Sheet TALL-104 CRL-11386 www.atcc.org Page 3 of 7 operations from this point on should be carried out under strict aseptic conditions. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 400 x g for 8 minutes.
4. Resuspend cell pellet with the recommended complete medium (see the lot specific information provided on the Certificate of Analysis for the culture recommended dilution ratio) and dispense into an appropriate size culture flask (recommended on the Certificate of Analysis). The recommended seeding density for CRL-11386 is 7.0 x 10^5 to 9.0 x 10^5 viable cells/mL. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).
5. Incubate the culture at 37°C in a suitable incubator. A 5% CO2 in air atmosphere is recommended if using the medium described on this product.

Comments:

CRL-11386 has historically shown a decrease in viability the first 2-3 days post thaw, the viability will b6gin improving as the cells remain in culture with routine media additions and replacements as outlined in the subculture restrictions.

Subculturing procedure:
Cultures can be maintained by addition or replacement of fresh medium. Start cultures at least 7 X 10^5 cells/mL.
Interval: Maintain between 4 X 10^5 and 1 X 10^6 cells/mL.
Medium Renewal: Add medium as cell density increases
Subculturing Restrictions: The CRL-11386 cell line is extremely sensitive to overgrowth and media exhaustion. Reseeding the cell culture must be performed every 2 to 4 days. Historically, with reseeds every 2 to 4 days, it is expected to perform a full media replacement every 14-21 days. However, full fluid changes should be performed if the cell viability drops below 85% after initially recovering

from start-up above that threshold or if the media becomes too acidic before the 14 days.
It is strongly recommended to maintain cell culture vessels in an upright position during incubation. CRL-11386 tends to exhibit increased growth abilities and higher viability when the flask(s) that maintain the cells are kept upright during incubation (i.e. on the short edge of the flask). The resulting proximity of cells seemingly trigg6rs enhanced propagation.
Interval: Maintain between 3.0 x 10^5 to 1.0 x 10^6 cells/mL

Reagents for cryopreservation: RPMI-1640 + 20% Gibco Knockout SR (Thermofisher Scientific cat# 10828010) + 10% DMSO. Freeze at a cell density of at least 15 x 10^6 cells/mL. Cell culture tested DMSO is available as ATCC 4-X.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: TALL-104 (ATCC CRL-11386)

References

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

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