Clusters in suspension

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.

DNA Profile:
- Amelogenin: X
- CSF1PO: 11,12
- D13S317: 8,12
- D16S539: 11
- DSS68: 9
- D7S820: 8,11,3
- THO1: 6,9,3
- TPOX: 8,10
- vWA: 18,19

Growth Properties:
- Organism: Homo sapiens, human
- Disease: acute T cell leukemia
- Cell Type: T lymphocyte
- Age: male
- Morphology: lymphoblast
- Incubation temperature: 37°C
- Incubation atmosphere: ambient
- Growth phase: stationary
- Growth characteristics: slow growth
- Growth requirements: complete medium
- Growth inhibition: none

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: P116 (ATCC® CRL-2676™)

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.

 handling procedure for frozen cells

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 Flask Cultures

Controlled atmosphere culture flask

1. Upon receipt visually examine the culture for macroscopic evidence of any microbial contamination. Using an inverted microscope (preferably equipped with phase-contrast optics), carefully check for any evidence of microbial contamination
2. Incubate the flask in an upright position for several hours at 37°C. After the temperature has
equilibrated, aseptically remove the entire contents of the flask and centrifuge at 125 x g for 5 to 10 minutes. Remove shipping medium and save for reuse. Resuspend the cell pellet in 10 mL of this medium.

3. From this cell suspension remove a sample for a cell count and viability. Adjust the cell density of the suspension to 2 to 5 x 10^6 viable cells/mL in the shipping medium.

4. Incubate the culture, horizontally, at 37°C in a 5% CO_2 in air atmosphere. Maintain the cell density of the culture as suggested under the subculture procedure.

**Subculturing Procedure**

Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1 to 2 x 10^6 viable cells/mL. Maintain cell density between 1 x 10^5 and 2 to 3 x 10^6 viable cells/mL. Cells can reach a density of 6 x 10^6 cells/mL.

**Medium Renewal:** Add fresh medium every 2 to 3 days (depending on cell density).

**Cryopreservation Medium**

Complete culture medium described above supplemented with 5% (v/v) DMSO. Cell culture tested DMSO is available as ATCC Catalog No. 4-X.

**Comments**

The P116 cell line displays severe defects in TCR-induced signaling functions, including protein tyrosine phosphorylation, intracellular calcium mobilization, and interleukin-2 (IL-2) promoter-driven transcription. These signaling defects can be fully reversed by reintroduction of catalytically active versions of either Syk or ZAP-70 into the P116 cells. Ref. The cell line expresses no detectable ZAP-70 mRNA or protein and also fails to express Syk. Ref. The P116 cell line is a ZAP-70 deficient mutant of the E6-1 clone of Jurkat (ATCC TIB-152). Ref. The P116.cl39 derivative (ATCC CRL-2677) stably expresses the ZAP-70 kinase.

**References**

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

**Biosafety Level:** 1

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**

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Please read this FIRST

Storage Temp.
liquid nitrogen
vapor phase

Biosafety Level
1

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 ATCC-formulated RPMI-1640 Medium, ATCC 30-2001. To make the complete growth medium, add the following components to the base medium: fetal bovine serum (ATCC 30-2020) to a final concentration of 10%.

Citation of Strain

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