ATCC

Product Sheet

DMS 79 (ATCC® CRL-2049™)

Please read this FIRST

Storage Temp.
liquid nitrogen 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, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium: heat-inactivated fetal bovine serum to a final concentration of 10%.

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: DMS 79 (ATCC® CRL-2049™)

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: lung/pleural fluid
Disease: carcinoma; small cell lung cancer
Age: 65 years
Growth Properties: suspension, multicell aggregates
DNA Profile:
Amelogenin: X,Y
CSF1PO: 10
D13S317: 11
D16S539: 12
D5S818: 10
D7S820: 9,11
THO1: 8
TPOX: 8
vWA: 18
Cytogenetic Analysis: Number of cells examined = 80; Modal Chromosome Number = 79 with a range of 65 to 84; Polyploidy Rate = 14.3%

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 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. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete growth medium and spin at approximately 125 x g for 5 to 7 minutes.
4. Resuspend cell pellet with the recommended complete growth medium (see the specific batch information for the culture recommended dilution ratio). and dispense into a 25 cm^2 or a 75 cm^2 culture flask. 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% CO_2 in air atmosphere is recommended if using the medium described on this product sheet.

Handling Procedure for Flask Cultures

The flask was seeded with cells (see specific batch information), grown, and completely filled with medium at ATCC to prevent loss of cells during shipping.

1. Upon receipt visually examine the culture for macroscopic evidence of any microbial contamination.

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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. 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 addition or replacement of fresh medium. Start cultures at 2 X 10^5 cells/mL and maintain between 1 X 10^5 and 1 X 10^6 cells/mL. Cell counts are approximate since the cells grow in aggregates.
Subcultivation Ratio: A subcultivation ratio of 1:2 to 1:4 is recommended
Medium Renewal: 2 to 3 times per week

Cryopreservation Medium

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

Comments

The cell express HLA class I and class II antigens.
Derivative chromosomes observed at high frequency in 24 karyotyped metaphases included: der(2)t(2;?18)(q10;q10); del(3)?(pter-->p21::q10-->qter); del(6)(q13); der(10); add(11)(p15); der(14)t(14;17)(q10;q10); add(15)(p11); add(15)(p11)+; and del(17)(?q24).
Two copies of each derivative chromosome was observed in each metaphase.
Less frequent derivative chromosomes included: del(12)?(q11q21)[18/24 cells] and add(13)(p11)[10/24 cells].
Four to eight additional marker chromosomes of unknown origin were generally detected in each cell.
Cytogenetics Comments: This is a hyper-triploid human cancer cell line with a modal chromosome number of 79.
A Y chromosome was verified by QM staining and C-banding. Normal chromosomes 10, 15 and 17 were absent.
The composite karyotype consists of 65 to 84, XY, +1, -2, der(2)t(2;?18)(q10;q10)(x2); -3, del(3)?(pter-->p21::q10-->qter)x2, -4, -5, +6, del(6)(?q15)x2,+7,+8,-9,-10,-10,-10, der(10)x2, -11, add(11)(p15)x2, -12, del(12)?(q11q21)[18], -13, +14, der(14)t(14;17)(q10;q10)x2, -15, -15,- 15, der(15)x2, -16, -17, -17, 17, del(17)x2, -18, +19, -20, +21, -22[cp24]

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

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,

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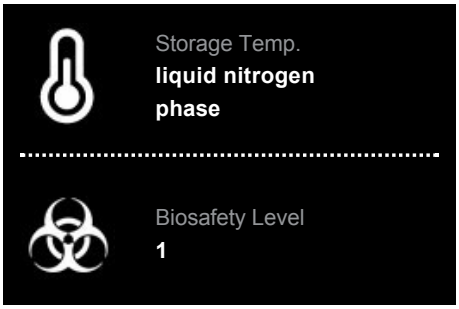

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