### Description

**Organism:** Homo sapiens, human  
**Tissue:** lung; derived from metastatic site: bone marrow  
**Disease:** carcinoma; small cell lung cancer  
**Cell Type:** Epithelial  
**Age:** 59 years  
**Gender:** male  
**Morphology:** epithelial  
**Growth Properties:** suspension, multicell aggregates  
**Isoenzymes:**  
- AK-1, 1  
- ES-D, 1  
- G6PD, B  
- GLO-I, 1  
- Me-2, 2  
- PGM1, 1-2  
- PGM3, 1-2  
**DNA Profile:**  
- Amelogenin: X  
- CSF1PO: 11  
- D13S317: 11,12  
- D16S539: 11  
- D5S818: 12  
- D7S820: 9,10  
- THO1: 6,9.3  
- TPOX: 8,11  
- vWA: 14,16  

**Cytogenetic Analysis:** This is a near triploid human cell line. The modal chromosome number is 68, but cells with 66, 70 and 71 chromosomes also occurred frequently. At least 15 markers were common to all cells including single copies of der(1)(1;13)(p32;q12) and del(3)(p21/22), and paired der(7)(7;?)(p22;?), t(13q16q) and t(16p21q). Ten others were seen in single copies or paired. No HSR or DM were found. Structurally normal N5, N13 and N14 were absent. Four or more copies of N18 and N20 were present in each cell, and N5, N7 and N11 were mostly single copies per cell. The X chromosomes were paired, and no Y chromosome was detected in QM stained preparations.

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 submerged 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.

### Batch-Specific Information

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

### 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 an appropriate size vessel. It is important to avoid excessive alkalinity of...
or contact your local distributor

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 sheet.

It is not necessary to remove the cryoprotective agent. If it is desired that the cryoprotective agent be removed immediately, or that a more concentrated cell suspension be obtained, centrifuge the cell suspension at approximately 125 x g for 5 to 10 minutes. Discard the supernatant and resuspend the cells with fresh growth medium at the dilution ratio recommended in the specific batch information.

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.
   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% CO₂ in air atmosphere.

Subculturing Procedure

The line should be subcultured by dilution with fresh medium. Alternatively, the clusters may be collected by centrifugation and resuspended in fresh medium.

Subcultivation Ratio: A subcultivation ratio of 1:2 to 1:6 is recommended

Medium Renewal: 2 to 3 times per week

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 cells produce relatively high amounts of c-myc mRNA, but c-myc DNA sequences are not amplified.

There is expression of c-myb, v-fms, Ha-ras, Ki-ras, N-ras and c-raf 1 mRNAs.

The line expresses elevated levels of four biochemical markers (neuron specific enolase, brain isoenzyme of creatine kinase, L-DOPA decarboxylase and bombesin-like immunoreactivity.

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.

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Additional information on this culture is available on the ATCC web site at www.atcc.org.

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