**Description**

Organism: Homo sapiens, human  
Tissue: colon:lung  
Disease: colorectal carcinoma  
Age: 72 years  
Gender: male  
Morphology: epithelial  
Growth Properties: adherent  
Isoenzymes: AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 1-2  
Me-2, 1-2  
PGM1, 1  
PGM3, 1  
DNA Profile:  
Amelogenin: X  
CSF1PO: 10  
D13S317: 9  
D16S539: 10,11  
D5S818: 12  
D7S820: 8,10  
THO1: 6,9  
TPOX: 8,11  
vWA: 17,18

**Cytogenetic Analysis:** The stemline modal chromosome number is 56, occurring at 28% with polyploidy at 12.4%. Eighteen markers are common to most metaphases examined. Normal X and chromosome 13 were absent; chromosomes 2, 4 and 22 were single-copied, and chromosome 12 was 4-copied. No Y chromosome was detected by Q band observation. DM occurred in nearly 50% of the cells.

**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. Also check to determine if the majority of cells are still attached to the bottom of the flask; during shipping the cultures are sometimes handled roughly and many of the cells often detach and become suspended in the culture medium (but are still viable).

2. **If the cells are still attached,** aseptically remove all but 5 to 10 ml of the shipping medium. The shipping medium can be saved for reuse. Incubate the cells at 37°C in a 5% CO₂ in air atmosphere until they are ready for use.

3. **If the cells are not attached,** aseptically remove the entire contents of the flask and centrifuge at 125
Subculturing Procedure
Protocol:
1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:2 to 1:4 is recommended

Medium Renewal: Twice per week

Cryopreservation Medium

Cryoprotectant 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 original histological characteristics of the colon carcinoma were maintained throughout transplantation in nude mice. After 23 passages in athymic mice, the T84 cell line was established. These cells grow to confluence as monolayers and exhibit tight junctions and desmosomes between adjacent cells. They have receptors for many peptide hormones and neurotransmitters and maintain vectorial electrolyte transport. This line exhibits tight junctions, and desmosomes between adjacent cells. The cells are positive for keratin by immunoperoxidase staining.

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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Please read this FIRST

Storage Temp.
liquid nitrogen
vapor phase

Biosafety Level
1

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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

A 1:1 mixture of Ham's F12 medium and Dulbecco's modified Eagle's medium with 2.5 mM L-glutamine, 95%; fetal bovine serum, 5%

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: T84 (ATCC® CCL-248™)