

## LS 174T [LS174T] Cell Line

Catalog No.: AMS.EP-CL-0145

### Origin and General Characteristics

|                          |  |
|--------------------------|--|
| <b>Cell Name</b>         | LS 174T [LS174T] Cell Line   |
| <b>Organism</b>          | Homo sapiens, Human  |
| <b>Age</b>               | 58 years   |
| <b>Tissue</b>            | Colon  |
| <b>Morphology</b>        | Epithelial   |
| <b>Growth Properties</b> | Adherent   |
| <b>Descriptions</b>      | LS 174T is a variant of LS 180 that has been maintained by using trypsin in the subculture protocol. It is more easily subcultivated than that parent line and, like LS 180, it is reported to produce large amounts of carcinoembryonic antigen(CEA). Electron microscopic studies revealed abundant microvilli and intracytoplasmic mucin vacuoles. They are negative for p53 antigen expression, but positive for mRNA expression. LS 174T cells stain positively for cytokeratins. The line is positive for expression of c-myc, N-myc, H-ras, N-ras, Myb, and fos oncogenes. K-ras and sis oncogene expression were not detected. |
| <b>Biosafety Level</b>   | 1  |

### Culture Conditions and Handling

|                               |   |
|-------------------------------|---|
| <b>Complete Growth Medium</b> | MEM +10% FBS +1% P/S  |
| <b>Subculturing</b>           | Remove and discard culture medium. Briefly rinse the cell layer with DPBS solution to remove all traces of serum that contains trypsin inhibitor. Add 1.0 to 2.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 2 to 3 minutes). Cells that are difficult to detach may be placed at 37°C to facilitate dispersal. Add 4.0 to 6.0 mL of complete growth medium and aspirate cells by gently pipetting. Add appropriate aliquots of the cell suspension to new culture vessels. |
| <b>Subcultivation Ratio</b>   | 1:2-1:4   |
| <b>Medium Renewal</b>         | Every 2 to 3 days   |
| <b>Cryopreservation</b>       | Freeze medium: 60% Basal medium+30% FBS+10% DMSO<br>Storage temperature: Liquid nitrogen vapor phase  |
| <b>Culture Conditions</b>     | Atmosphere: Air, 95%; CO <sub>2</sub> , 5%<br>Temperature: 37°C   |

### Special Features of the Cell Line

|                           |   |
|---------------------------|---|
| <b>Tumorigenic</b>        | Yes   |
| <b>Effects</b>            | Yes, in nude mice.  |
| <b>Antigen Expression</b> | serologically defined colon cancer antigen 3; Homo sapiens, expressed; HLA A2, B13, B50; Blood Type O   |
| <b>Gene Expression</b>    | Carcinoembryonic Antigen(Cea), Interleukin 10(IL-10), Interleukin 6(IL-6), Mucin; The Production Of Cea In The Atcc Seed Stock Was 1944Ng Per 10 <sup>6</sup> Cells In 10 Days. |

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## Recommendations for handling of cryopreserved cells

1. The cell is packaged by dry ice. When receiving the cell, please make sure that the vial is still frozen. If there is cell thawing in the tube, please take photo before experiment or storage.
2. If immediate culturing is not intended, the cryovial(s) must be stored in liquid nitrogen (-196°C) or at least at -80°C after arrival.

If immediate culturing is intended, please follow these instructions:

3. Quickly thaw by rapid agitation in a 37°C water bath within 45-90 seconds. The water bath should have clean water containing an antimicrobial agent. As soon as the sample has thawed, remove the cryovial from the water bath.

**From now on, all operations should be carried out under aseptic conditions.**

4. Transfer the cryovial to a sterile flow cabinet and wipe with 70% alcohol. Carefully open the vial and transfer the cell suspension into a 15 ml centrifuge tube containing 9 ml of cell complete medium (room temperature or 37°C).
5. In order to reduce cell damage, add 1ml of cell complete medium into cryovial, slightly pipette, then use a pipettor to add 1 ml of suspension into the centrifuge tube. Resuspend the cells carefully. Centrifuge at 300×g for 3 min and discard the supernatant. The centrifugation step may be omitted, but in this case the remains of the freeze medium have to be removed 24 hours later.
6. Resuspend the cells carefully in 10ml fresh cell culture medium and transfer them into one or two T25 cell culture flasks.

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