**Description**

**Organism:** Homo sapiens, human  
**Immortalization Method:** Expression of human telomerase (hTERT)  
**Tissue:** Skin  
**Disease:** COFS (Cerebro-Oculo-Facio-Skeletal Syndrome)  
**Cell Type:** Fibroblast  
**Age:** 4 to 6 years  
**Gender:** Female  
**Morphology:** fibroblast  
**Growth Properties:** Adherent  

**DNA Profile:**
- D5S818: 7, 13  
- D13S317: 10, 12  
- D7S820: 10, 12  
- D16S539: 9, 11  
- vWA: 16, 17  
- Amelogenin: X  
- TPOX: 11, 12  
- CSF1PO: 12  
- TH01: 7, 9.3

**Cytogenetic Analysis:** TelCOFS02MA is a diploid human cell line of female origin with a modal chromosome number of 46 (46,XX) indicated by cytogenetic analysis on G-banded metaphase cells.

**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.

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 ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If storage of the frozen culture is necessary upon arrival, store the vial in liquid nitrogen vapor phase and NOT at -70°C. Storage at -70°C will result in loss of viability.

1. Prepare a 25 cm² or a 75 cm² culture flask containing the recommended complete culture medium. Prior to the addition of the vial contents, the vessel containing the growth medium should be placed in the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6) and to avoid excessive alkalinity of the medium during recovery of the cells.  
2. 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).  
3. 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 operations from this point on should be carried out under strict aseptic conditions.  
4. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge the cell suspension at approximately 125 x g for 5 to 7 minutes.  
5. Discard the supernatant and resuspend the cells in fresh growth medium. Add this suspension to the prepared culture vessel, seeding the cells at 4 X 10⁷ to 6 X 10⁷ cells/cm².  
6. Incubate the culture at 37°C in a suitable incubator.  
7. A 5% CO₂/95% air atmosphere is recommended if using the medium described on this product sheet.
Volumes used in this protocol are for 75 cm² flasks; proportionally reduce or increase amount of dissociation solutions for culture vessels of other sizes.

1. Remove and discard spent medium.
2. Briefly rinse the cells with Dulbecco's Phosphate Buffered Saline (DPBS, ATCC® 30-2200) and discard rinse solution.
3. Add 2.0 to 3.0 mL room temperature 0.25% Trypsin-EDTA (ATCC® 30-2101) to the flask. Incubate at 37°C for 2-3 min (until cells have detached).
4. Neutralize trypsin by adding 5-8 mL of complete growth media.
5. Centrifuge cells at 250 x g for 5 min at room temperature.
6. Remove supernatant. Resuspend pellet in 6.0 to 8.0 mL Complete Growth Medium.
7. Count cells, and seed 4.0 x 10⁶ to 6.0 x 10⁶ viable cells/cm² to new culture vessels.

Medium Renewal: Every 2-3 days.

CRL-4005 (TelCOFS02MA) is an hTERT-immortalized skin fibroblast cell line derived from a patient with Cerebro-Oculo-Facio-Skeletal Syndrome.

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

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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