Product description

UM-UC-7 is a human transitional cell carcinoma cell line derived from a male bladder cancer patient. The UM-UC panel of urothelial carcinoma is a diverse range of 11 patient derived cell lines developed by the university of Michigan that have been well-categorised in the literature. These cells were assessed for their susceptibility to adenoviral mediated gene delivery, tumour growth in nude mice and differences in genetic alterations.

Name: UM-UC-7 (Human bladder transitional cell carcinoma of the bladder) cell line

Alternate name: UMUC7; University of Michigan-Urothelial Carcinoma-7

Cancer type: Bladder cancer

Cancers detailed: Human bladder transitional cell carcinoma

Organism: Human

Gender: Male

Tissue: Bladder

Growth properties: Adherent

Model: Tumour line

Conditional: No

CRISPR edited: No

Production details: UM-UC-7 was obtained from an open operative specimen from a transitional carcinoma of the bladder in a male patient.

Cellosaurus ID: CVCL_2752

Contributor(s)

Inventor: H. Grossman & Anita Sabichi
Institute: University of Michigan

Properties

Product format: Frozen

Unpacking and storage:

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.

Recommended medium: EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

Subculture: Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 2-4x10,000 cells/cm² using 0.05% trypsin/EDTA; 5% CO_2; 37°C. Doubling time approximately 19 hours.

Culture conditions: 37.0°C ± 1.0°C incubator with 5.0% ± 1.0% CO_2

Handling instructions

1. Please ensure that vials are frozen when received, and store at **<-130 °C long term**. When removing frozen cells from storage, it is important to minimize exposure to room temperature (15 - 25°C). If not proceeding directly to thawing, place the cells on dry ice or in a liquid nitrogen container.
2. **Do not thaw at room temperature.** To thaw, swirl the vial quickly in a 37 °C water bath with O-ring and cap above the water to avoid contamination. Remove from the water bath with a small ice pellet remaining (this should not take more than 2 minutes) and wipe the exterior with 70% ethanol or isopropanol before transferring to a biosafety cabinet. Further steps should be conducted under aseptic conditions.
3. We strongly recommend that the volume of cell suspension is measured at this point, and a 20 uL aliquot be removed for a **viable cell count** using trypan blue or similar dye. This ensures that provided cells are viable, and the cell count can be used to determine volume of growth medium to be added to the cell suspension.
4. Transfer the remaining cell suspension to a centrifuge tube using a pipette.
5. Rinse the vial with 1 mL of medium and add it dropwise to the cells.
6. Wash by adding 15 - 20 mL of medium **dropwise**, while gently swirling the tube.
7. Centrifuge the cell suspension at **1200 rpm for 5 minutes** at room temperature.
8. Carefully remove the supernatant with a pipette, leaving a small amount of medium to ensure the cell pellet is not disturbed. Resuspend the cell pellet by gently flicking the tube.
9. Gently add required volume of complete medium and transfer to a suitable cell culture flask.
10. Examine the cultures after 24 hours and split sub confluent cultures following instructions above.

References

- Grossman et al. 1986. J Urol. 136(5):953-9. PMID: 3761468
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Material Citation

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