Product description

The tumourigenic and metastatic CMT 64 murine cell line is an *in vivo* mouse tumourigenesis system to study the growth characteristics and metastasis of mouse tumour lines (homoplastic with stable CMT 167 line); it demonstrates stable growth characteristics and morphology in culture and in lung metastasis induced after subcutaneous inoculation of mice. This demonstrates its consistency and reliability as a model for studying lung carcinoma progression and metastasis.

Name: CMT 64 Cell Line

Disease: Cancer

Cancer type: Lung cancer

Cancer detailed: Metastatic lung carcinoma

Organism: Mouse

Gender: Female

Tissue: Lung

Model: Cancer cell line

Growth properties: Adherent

CRISPR Edited: No

Production details: CMT 64 was isolated from a primary alveogenic lung carcinoma tumour in a C57BL/1CRF mouse. The cell line maintained a stable morphology and growth rate comparable to that observed in the original tumour tissue in vitro. Notably, CMT 64 retained similar characteristics in both primary tumour growth and in lung metastases following subcutaneous inoculation in mice.

Cellosaurus id: CVCL_2406

Contributor(s)

Inventor(s): Peter Riddle
Institute: Cancer Research UK, London Research Institute: Lincoln's Inn Fields

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: DMEM with 2mM Glutamine and 10% FCS.

Subculture: Split sub-confluent cultures (70-80%) 1:4 to 1:10 seeding at approximately 3 x 10^4 cells/cm² using 0.05% trypsin or trypsin/EDTA; 5% CO_2; 37°C. Saturation density 1.2 x 10^5 cells/cm².

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 cell suspension into a 15 mL sterile conical tube containing 5 mL of pre-warmed, complete growth medium. Centrifuge cells at **125xg for 5-7 minutes**.
5. Aspirate the supernatant without disturbing the cell pellet. Re-suspend the cell pellet in the recommended pre-warmed, complete growth medium and dispense into a culture flask.

References

- Miyashita N et al. 2021. Sci Rep. 17:11(1):22380. PMID: 34789779.
- Rincon et al. 2017. Oncotarget. PMID: 28525366.
- Franks et al. 1976. Cancer Res. 36(3):1049-1055. PMID: 1253168.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: CMT 64 Cell Line, was invented by Peter Riddle at Cancer Research UK, London Research Institute: Lincoln's Inn Fields (CancerTools.org #151447).