Product description

MEF ULK1 ULK2 DKO (SIM) is a spontaneously immortalised cell line. Primary mouse embryonic fibroblasts (MEFs) were isolated from the embryos of a pregnant female Ulk1-/- Ulk2-/+ mouse at day 13.5 post coitus. The embryos were genotyped to identify those that were Ulk1 -/- Ulk2 -/- and the MEFs that were isolated and cultured were immortalised by a standard serial passaging protocol. The MEF ULK1 ULK2 DKO (SIM) cell line provides a tool for the study of Ulk1 and Ulk2 and of autophagy.

Name: MEF ULK1 ULK2 DKO (SIM) Cell Line

Research fields: Apoptosis and autophagy; Cancer; Cell signalling and signal transduction; Metabolism; Neurobiology

Organism: Mouse

Tissue: Embryo

Growth properties: Adherent

Model: Spontaneously immortalized cell line

Conditional: No

CRISPR edited: No

Cellosaurus ID: CVCL_5A56

Contributor(s)

Inventor: Sharon Tooze
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 + 10% FCS + 2mM Glutamine

Subculture: Trypsinize with 0.05% Trypsin/EDTA and inoculate new cultures at 2 x 10^4/cm^2

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

Handling instructions

Thawing:

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 when the **ice crystals are slightly dissolved** 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. Add the cell suspension to prewarmed culture medium in a 15 mL tube, dropwise, to minimize shock.
5. Repeat until the ice crystals have been completely dissolved.
6. Centrifuge for 5 min at 220 g and discard the supernatant. Resuspend in complete culture medium and transfer to culture flasks.

References

- McAlpine et al. 2013. Autophagy. 9(3):361-73. PMID: 23291478

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: MEF ULK1 ULK2 DKO (SIM) Cell Line, was invented by Sharon Tooze at Cancer Research UK, London Research Institute: Lincoln's Inn Fields (CancerTools #151774).