

Ku80-/- | 305258

Key features

Description Ku80-/- MEF (homologous recombination deficient) cells are used for studying DNA repair pathways. Ku80 (XRCC5) is a component of the DNA-PK complex, which is involved in non-homologous end joining (NHEJ) and double-strand break (DSB) repair. The absence of Ku80 leads to a severe defect in NHEJ, resulting in increased genomic instability and sensitivity to DNA damage. MEFs derived from Ku80-/- mice are commonly used in research to investigate the role of NHEJ in various biological processes.

Organism Mouse

Tissue Embryonic fibroblasts

Disease Defective DNA repair (NHEJ defect; associated with SV40; NHEJ)

Metastatic site Not applicable (primary MEF culture)

Applications DNA repair studies; NHEJ; Ku80/XRCC5; DNA damage (DSB); genome editing; cell death

Synonyms Ku80-/- MEF

Characteristics

Age 12-13 weeks

Gender Male

Ethnicity C57BL/6J

Morphology Fibroblastic

Cell type Primary

Growth properties Adherent

Ordering information

Citation Ku80-/- (Cytion 305258)

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Thawing and Culturing Cells

1. **Thawing:** Thaw the vial rapidly in a 37°C water bath. Transfer the cells to a pre-warmed medium.
2. **Centrifugation:** Centrifuge the cells at 300 x g for 3 minutes at 4°C. Remove the supernatant and resuspend the cells in pre-warmed medium.
3. **Seeding:** Seed the cells into a 15 cm² flask containing 8 ml of pre-warmed medium.
4. **Medium Change:** After 24 hours, change the medium to fresh pre-warmed medium.
5. **Confluency:** Once cells reach 70% confluency, they are ready for use.
6. **Passaging:** Pass the cells into a new 15 cm² flask with 10 ml of fresh pre-warmed medium.
7. **Freezing:** For long-term storage, freeze the cells in a freezing medium.
8. **Storage:** Store the cells at -80°C.

Incubation Atmosphere 37°C, 5% CO₂, humidified air

Flask Coating No coating

Freezing Procedure Freeze cells in a freezing medium at -80°C.

Shipping Conditions Ship cells at -80°C.

Storage Conditions Store cells at -150 °C for up to 196 days.

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Sterility The cells are free of mycoplasmas and PCR detectable. The cells are free of endotoxins.