

LA795 Cells | 300472

General information

Description

The LA795 cell line, derived from a lung adenocarcinoma, has been extensively studied for its chromosomal patterns using G and C banding techniques at passages 60 and 100. The chromosomal analysis revealed model chromosome numbers 69, 68, 67, and 66. Detailed G banding analysis of 46 cells across these four clones indicated that the chromosome patterns of LA795 are hypotetraploid male cells, closely resembling those observed in cells transplanted into mice. The two primary configurations of the 69 model chromosome, designated 69I and 69II, suggest a progression in chromosomal evolution from 69 to 68, 67, and 66 as identified through karyotype analysis.

The karyotype analysis also highlighted a notable pattern in the loss of specific chromosomes, specifically chromosome No. 4 and No. 14, across the various clones. This recurrent chromosomal loss indicates a potential non-random chromosomal aberration associated with mouse tumor cells. The findings from these studies provide valuable insights into the chromosomal stability and evolution of the LA795 cell line, offering a deeper understanding of the genetic underpinnings of lung adenocarcinoma and its progression.

Organism

Mouse

Tissue

Lung

Disease

Adenocarcinoma of the mouse pulmonary system

Synonyms

LA-795

Characteristics

Age

Unspecified

Gender

Male

Growth properties

Adherent

Identifiers / Biosafety / Citation

Citation

LA795 (Cytion catalog number 300472)

Biosafety level

1

Expression / Mutation

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Handling

Culture MediumRPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO₃ (Cytion article number 820700a)**Medium supplements**

Supplement the medium with 10% FBS

Passaging solution

Accutase

Subculturing

Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with Accutase, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.

Freeze medium

CM-1 (Cytion catalog number 800100)

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Handling of cryopreserved cultures

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

Quality control / Genetic profile / HLA

Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.

To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.