Product sheet

C127I Cells | 400134

General information

Description	The murine cell line C127I, derived from malignant neoplasms of the mammary gland, exhibits a distinctive epithelial nature, rendering it a valuable asset for a variety of applications in research. Notably, C127I cells have undergone genetic modification through the introduction of a chimeric plasmid comprising bovine papillomavirus and the human interferon (HuIFN) gene, particularly IFN-gamma or IFN-alpha 5, regulated by the Simian virus 40 early promoters. This genetic transformation results in the maintenance of 30-50 extrachromosomal copies of the hybrid plasmid and the continuous secretion of elevated levels of HuIFNs. As a result, Mouse C127I Cells present an exciting opportunity for researchers to investigate the expression and functions of diverse proteins and their implications on biological systems, offering a valuable model system for studying mammary biology and related diseases. For example, C127I cells serve as a versatile platform for various applications, including acting as a transfection host for the transformation with bovine papillomavirus DNA plasmids, facilitating the visualization of sarcoma virus-induced foci, and enabling quantitative in vitro assays for bovine papilloma virus research, further enhancing their utility in scientific investigations.
Organism	Mouse
Tissue	Breast, mammary gland
Disease	Carcinoma
Applications	Transfection host for transformation with bovine papilloma virus DNA plasmids. Visualization of sarcoma virus-induced foci. Quantitative in vitro assays for bovine papilloma virus.
Synonyms	C 1271, C-127I, C-127 I, CNC 127I

Characteristics

Gender	Female
Morphology	Epithelial-like
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	C127I (Cytion catalog number 400134)
Biosafety level	1

Expression / Mutation

Viruses	Negative for ectromelia virus (mousepox).
Virus susceptibility	Bovine papilloma virus
Reverse transcriptase	Negative (as determined in supernatant fluid)

Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
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.
Split ratio	A ratio of 1:5 to 1:15 is recommended
Fluid renewal	2 to 3 times per week
Freezing recovery	After thawing, plate the cells at 5 x 10^4 cells/cm^2 and allow the cells to recover from the freezing process and to adhere for at least 24 hours.
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

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. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
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.