Product sheet

CCD-1095Sk Cells | 300642

General information

Description	CCD-1095Sk is a fibroblast cell line derived from the skin of a human male. It was established from a biopsy of uninvolved skin taken from a patient who had a squamous cell carcinoma. This cell line is utilized primarily in studies that explore the interactions between skin cells and cancerous cells, particularly how non-cancerous cells in the tumor microenvironment can influence tumor growth and progression. The CCD-1095Sk cell line is therefore valuable for cancer research, specifically for understanding the stromal aspects of skin cancer. The CCD-1095Sk cells exhibit a fibroblast morphology, characterized by a spindle-shaped, elongated form typical of connective tissue cells that produce extracellular matrix components essential for tissue repair and structural integrity. These cells are adherent, grow in monolayers, and are known for their robustness in various in vitro experimental conditions. They are used to model fibroblast behavior in normal skin and to examine changes in fibroblast activity under cancerous conditions, which can include the secretion of growth factors, cytokines, and matrix metalloproteinases. As such, they provide an invaluable tool for pharmacological studies and the development of therapeutic strategies targeting the tumor environment.
Organism	Human
Tissue	Skin
Disease	Ductal carcinoma
Applications	3D cell culture
Synonyms	CCD1095Sk

Characteristics

Age	37 years
Gender	Female
Morphology	Fibroblast
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	CCD-1095Sk (Cytion catalog number 300642)
Biosafety level	1

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Expression / Mutation

Handling

Culture Medium	EMEM, w: 2 mM L-Glutamine, w: 1.5 g/L NaHCO3, w: EBSS, w: 1 mM Sodium pyruvate, w: NEAA (Cytion article number 820100c)
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)

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.