Product sheet

CaD2 Cells | 400138

General information

Description	CaD2 cells, originating from the murine breed C3H, represent a cancer cell line derived from a mouse mammary gland carcinoma. Specifically, they were isolated from a six-month-old female mouse, closely mirroring the biological context of mammary gland malignancies in mice. CaD2 cells offer a valuable platform for the study of malignant neoplasms due to their distinct attributes. Their epithelial-like morphology and adherent growth properties ensures the reliability and meaningfulness of experimental results. This robust characterization, combined with the availability of essential growth conditions, such as DMEM with 10% FBS, makes CaD2 a valuable resource in cancer research. Researchers often maintain these cells at a recommended ratio of 1:3, with a seeding density of 5 x 10^4 cells/cm^2 to achieve a confluent monolayer within two days, allowing for regular experimentation, typically conducted 2 to 3 times per week. The cells have been tested and confirmed to be negative for several viruses and microorganisms, including Sendai virus, Ektromelie virus, Polyoma virus, K-Virus, Kilham virus, Reo 3 virus, PVM (Pneumonia Virus of Mice), LCM (Lymphocytic Choriomeningitis) virus, M.pulmonis (Mycoplasma pulmonis), MVM (Minute Virus of Mice), Theiler's GD VII virus, Toolan's H-1 virus, MHV (Mouse Hepatitis Virus), LDV (Lactate Dehydrogenase-elevating Virus), RCV/SDA (Rat Coronavirus/Sialodacryoadenitis Virus), M-Adenovirus, and B. piliformis. This comprehensive testing ensures that CaD2 cells can be used with confidence in various research settings without concerns related to these potential contaminants.
Organism	Mouse
Tissue	Breast, mammary gland
Disease	Carcinoma

Characteristics

Age	6 months
Gender	Female
Morphology	Epithelial-like
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	CaD2 (Cytion catalog number 400138)
Biosafety level	1

Expression / Mutation

Viruses	MAP-test negative: Sendai, Ektromelie, Polyoma, K-Virus, Kilham, Reo 3, PVM, LCM, M.pulmonis, MVM, Theiler's GD VII, Toolan's H-1, MHV, LDV, RCV/SDA, M-Adenovirus, B.piliformis.

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 1:3 is recommended
Seeding density	5 x 10^4 cells/cm^2 will result in a confluent monolayer within 2 days.
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	CaD2 cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at 300 x g for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.

Quality control / Genetic profile / HLA

Sterility	Mycoplasma contamination is rigorously 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.