Product sheet

CaSki Cells | 300145

General information

Description	CaSki is a cell line exhibiting epithelial morphology, isolated from the cervix of a 40-year-old White female patient with epidermoid carcinoma. The establishment of this cell line provides a critical model for the study of cervical cancer, particularly in the context of HPV-mediated oncogenesis. CaSki cells are characterized by their capacity to replicate HPV16 DNA, which is integrated into the host's genome, offering insights into the viral life cycle and its role in malignant transformation. These cells are an essential resource in cancer research, particularly for studies focusing on the pathogenesis of HPV-associated cervical cancer. The presence of high-risk HPV16 in CaSki cells facilitates the exploration of viral oncogene functions, notably the E6 and E7 proteins and their interactions with cellular tumor suppressor pathways, including those involving p53 and pRB. This aspect makes CaSki cells invaluable for evaluating potential therapeutic targets and developing interventions aimed at HPV-induced malignancies.
Organism	Human
Tissue	Cervix
Disease	Carcinoma
Metastatic site	Cervix
Synonyms	Ca-Ski, Ca Ski, Caski, CASKI

Characteristics

Age	40 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Cell type	Epidermoid
Growth properties	Adherent

Regulatory Data

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Citation	CaSki (Cytion catalog number 300145)
Biosafety level	2
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1100

Biomolecular Data

Isoenzymes	G6PD, B
Products	Beta subunit of hCG, tumor associated antigen

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	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.
Seeding density	1 x 10^4 cells/cm^2 will result in a confluent monolayer within 3to4 days.
Fluid renewal	2 to 3 times per week
Post-Thaw 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 48 hours.
Freeze medium	As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

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Thawing and Culturing Cells	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.
Incubation Atmosphere	37°C, 5% CO_2, humidified atmosphere.
Shipping Conditions	Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.
Storage Conditions	For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis

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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.