

Hey Cells | 305017

General information

Description

HEY Cells, derived from a human ovarian cancer xenograft, are a valuable resource for cancer researchers seeking to advance their understanding of papillary cystadenocarcinoma, a moderately differentiated form of ovarian cancer. The parental cell line, HEY, was initially obtained from a peritoneal sample of a Caucasian patient diagnosed with this specific type of cancer. These epithelial-like cells closely resemble human cells, making them an excellent model for studying ovarian cancer. HEY Cells exhibit a rapid doubling time of approximately 30 hours, allowing for efficient and time-effective experimentation. Researchers can utilize these cells to investigate various aspects of cancer biology, such as tumour formation, metastasis, and drug response.

HEY Cells are particularly well-suited for applications involving 3D cell culture, a technique that more closely mimics the physiological environment of tumours. Their ability to grow in semisolid culture and as xenografts in immunologically deprived CBA/CJ mice highlights their adaptability and potential for in vivo studies. By incorporating HEY Cells into cancer research, scientists can uncover crucial insights into the development and progression of papillary cystadenocarcinoma. These cells are invaluable for exploring novel therapeutic strategies, identifying potential drug targets, and evaluating treatment efficacy.

In summary, HEY Cells provide researchers with a robust and reliable resource for investigating ovarian cancer. With their origins in a patient sample and their epithelial-like morphology, these cells faithfully replicate key characteristics of papillary cystadenocarcinoma. Their applications in 3D cell culture and cancer research make them essential in advancing our understanding of this challenging disease.

Organism

Human

Tissue

Ovary

Disease

High grade ovarian serous adenocarcinoma

Synonyms

HEY

Characteristics

Age

Unspecified

Gender

Female

Ethnicity

European

Morphology

Epithelial

Growth properties

Adherent

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Regulatory Data

Citation	Hey (Cytion catalog number 305017)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0297

Biomolecular Data

Tumorigenic	Yes
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Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO ₃ , w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	Accutase
Doubling time	20 to 30 hours
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	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 $300 \times g$ 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.