HEYA8

305452

GENERAL INFORMATION

Description

The HEYA8 cell line is a well-characterized model of human ovarian cancer, originally established from a patient with papillary cystadenocarcinoma. This cell line is particularly notable for its aggressive growth and metastatic potential, commonly used in research involving ovarian cancer pathophysiology and therapeutic studies. HEYA8 cells have been extensively studied for their expression of interleukin-8 (IL-8), a chemokine linked to cancer progression. IL-8 acts as an autocrine growth factor, enhancing proliferation, angiogenesis, and tumor invasiveness. Notably, high levels of IL-8 expression correlate with increased tumor growth and microvessel density in HEYA8 cells. Experimental transfections with IL-8 vectors have demonstrated that augmented IL-8 expression can significantly boost tumor proliferation, while neutralizing antibodies reduce this growth.
HEYA8 cells have also been utilized to study the response of ovarian cancer to various stress conditions, such as hypoxia. Hypoxia triggers IL-8 overexpression in these cells, mediated by pathways involving PI3K/Akt and p38 MAPK. The activation of these pathways enhances IL-8 gene transcription through factors like AP-1 and NF-κB, contributing to the tumor's adaptation to low oxygen environments and supporting its survival and metastatic potential. Consequently, inhibitors targeting the PI3K and p38 MAPK pathways are being explored as potential strategies to mitigate the aggressive characteristics of HEYA8 cells and reduce tumor progression.

Tissue	Ovary
Disease	High grade ovarian serous adenocarcinoma

Synonyms

- HEY-A8
- Hey-A8
- Hey A8
- HEYA8
- HeyA8
- Heya8

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

IDENTIFIERS

Citation

HEYA8 (Cytion catalog number 305452)

NCBI TaxID	9606
Cellosaurus	CVCL_8878

HANDLING AND CULTURE

Culture medium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

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Banking information
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Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	Accutase
Seeding density	1-3*10^4/cm²

Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

QUALITY CONTROL AND CRYOPRESERVATION

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.

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.

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.

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.

DONOR

Donor age	Unspecified
Ethnicity	Caucasian

LEGAL AND SAFETY

Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Material Transfer Agreement required	Yes

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