

Culturing HeLa cells

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Organisation

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Specific Research Group or Service In Vitro Toxicology and Dermato-Cosmetology

Country Belgium

SCOPE OF THE METHOD

| | |
|---|--|
| The Method relates to | Human health |
| The Method is situated in | Basic Research, Translational - Applied Research |
| Type of method | In vitro - Ex vivo |
| Specify the type of cells/tissues/organs | HeLa cells |

DESCRIPTION

Method keywords

Culturing

Transfection

cell culture

cells

cancer cell line

mammalian

Scientific area keywords

Cell culture

virus studies

cytotoxicity

transfection

Method description

HeLa cells are the first continuous cancer cell line and were isolated from the aggressive glandular cervical cancer of a 31-year old woman. It was the first aneuploid line derived from human tissue maintained in continuous cell culture. Knowledge of almost every process that occurs in human cells has been obtained using HeLa cells. The cells should be handled under laboratory containment level 2 and are identified as a contaminant in many other cell lines. Culture medium: EMEM + glutamine + NEAA + FBS; 5% CO₂; 37 °C Growth mode: adherent Split sub-confluent cultures (70 % - 80 %) 1:3 to 1:10, seeding at 1.3x10,000 cells/cm² using Trypsin.

Lab equipment

Biosafety cabinet;

Incubator;

Microscope;

T-flasks.

Method status

Still in development

History of use

PROS, CONS & FUTURE POTENTIAL

Advantages

- Stable genome after years of cultivation;
- Applying selection pressure is possible;
- Grow rapidly given the right medium and space.

Challenges

- Can infect other cells;
- Can grow aggressively;
- Avoid cross-contamination;
- Use of serum.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

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