Culturing HeLa cells

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Organisation

Name of the organisation Vrije Universiteit Brussel (VUB)
Department Pharmaceutical and Pharmacological Sciences
Specific Research Group or Service In Vitro Toxicology and Dermato-Cosmetology
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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 handeld 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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