

Culturing HeLa cells

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SCOPE OF THE METHOD

Alternative method relates to	Human health
Alternative method is situated in	Basic Research, Translational - Applied Research
Type of alternative method	In vitro - Ex vivo
This method makes use of	Human derived cells / tissues / organs
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

Associated documents

PARTNERS AND COLLABORATIONS

Organisation

Name of the organisation Vrije Universiteit Brussel

Department Pharmaceutical and Pharmacological Sciences (FARM)

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

Country Belgium

Coordinated by



Financed by

