Culturing HEK 293 FT cells

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Organisation

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Department Pharmaceutical and Pharmacological Sciences

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

Country Belgium

Geographical Area Brussels Region

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	Human embryonic kidney 293 FT cells

DESCRIPTION

Method keywords

Culturing

Transfection

Viral production

High viral titer

Scientific area keywords

Viral production
High viral titer
Clinical translation
Cellular reprogramming

Method description

Human embryonic kidney (HEK) 293 FT cells is a celline that is very easy to culture and is used to obtain high viral titers. “293” is a reference to the 293th experiment wherein the cell line was discovered. A transfection with an adenovirus type 5 DNA fragment took place, causing the cell line to express E1A adenoviral gene. This stimulates the transcription of specific viral genes, resulting in a high production of viral proteins. “T” means that the HEK293 cell line is transfected with the SV40 T antigen, also stimulating the production of viral proteins. “F” stands for a fast growing HEK 293T strain with a high transfection efficiency.

Lab equipment

Biosafety cabinet;
Microscope;
Incubator.

Method status

History of use

PROS, CONS & FUTURE POTENTIAL

Advantages

High viral titer;
Easy to culture;
Fast growing;
Easy to transfect.

Challenges

Use of serum.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

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