

# Culturing HEK 293 FT cells

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## SCOPE OF THE METHOD

<b>Alternative method relates to</b>	Human health
<b>Alternative method is situated in</b>	Basic Research, Translational - Applied Research
<b>Type of alternative method</b>	In vitro - Ex vivo
<b>This method makes use of</b>	Human derived cells / tissues / organs
<b>Specify the type of cells/tissues/organs</b>	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 cell line 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**

### **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

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