Culturing HEK 293 FT cells

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SCOPE OF THE METHOD

<table>
<thead>
<tr>
<th>The Method relates to</th>
<th>Human health</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Method is situated in</td>
<td>Basic Research, Translational - Applied Research</td>
</tr>
<tr>
<td>Type of method</td>
<td>In vitro - Ex vivo</td>
</tr>
<tr>
<td>Specify the type of cells/tissues/organisms</td>
<td>Human embryonic kidney 293 FT cells</td>
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</tbody>
</table>

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