The HepaRG cell line: a unique in vitro hepatic cell system


Contact person
Anja Heymans

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
Country Belgium
Geographical Area Brussels Region

SCOPE OF THE METHOD

<table>
<thead>
<tr>
<th>The Method relates to</th>
<th>Human health</th>
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</thead>
<tbody>
<tr>
<td>The Method is situated in</td>
<td>Basic Research</td>
</tr>
<tr>
<td>Type of method</td>
<td>In vitro - Ex vivo</td>
</tr>
<tr>
<td>Specify the type of cells/tissues/organs</td>
<td>Terminally differentiated human hepatocellular carcinoma cells</td>
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</tbody>
</table>

DESCRIPTION

Method keywords

cell culture
in vitro tool
broad application
hepatic cell line
ready-to-use

**Scientific area keywords**
Liver cell biology
Toxicity studies
Drug metabolism
Genotoxicity and carcinogenicity
Hepatotoxicity screening

**Method description**
Cryopreserved differentiated HepaRG cells (obtained from Biopredic International) are derived from a human hepatocellular carcinoma. These cells are an unique *in vitro* tool that provides reproducible results and exhibit many characteristics of primary human hepatocytes such as morphology, expression of key metabolic enzymes, nuclear receptors and drug transporters. Because of these characteristics they have a very broad application versatility like *in vitro* ADME, hepatotoxicity screening and mechanistic testing applications (for instance transporters, drug-induced liver injury, genotoxicity and carcinogenicity studies).

**Lab equipment**
- Laminar flow hood;
- Phase contrast microscope;
- Incubator;
- Water bath (automatic);
- Micropipettes;
- Centrifuge.

**Method status**
History of use

**PROS, CONS & FUTURE POTENTIAL**

**Advantages**
Lack donor variability.
REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

Associated documents

Toxicogenomics-based prediction of acetaminophen-induced liver injury using human hepatic cell systems.pdf