

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

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## 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

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

## 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 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](#)

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