

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

Created on: 20-03-2019 - Last modified on: 28-02-2022

#### **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

The Method relates to	Human health
The Method is situated in	Basic Research
Type of method	In vitro - Ex vivo
Specify the type of cells/tissues/organs	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

Coordinated by











Financed by