Measurement of Albumin Secretion as Functionality Test

Contact person

Steven Branson

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>
</tr>
</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>parenchymal liver cells, stem cell-derived hepatocyte-like cells</td>
</tr>
</tbody>
</table>

DESCRIPTION

Method keywords

ELISA
albumin

Scientific area keywords
in vitro cell culture
hepatic in vitro model
hepatic differentiation
liver cells

**Method description**

Albumin secretion in the supernatant of *in vitro* cultures can be measured by an enzyme-linked immunosorbent assay. The assay is based upon a quantitative sandwich enzyme immunoassay technique and measures albumin in the culture medium of primary hepatocytes and/or hepatocyte like cells. Standards and samples are sandwiched between an immobilized polyclonal antibody and a biotinylated polyclonal antibody specific for albumin. The latter is recognized by a streptavidinperoxidase conjugate and after adding a peroxidase enzyme substrate, a blue color is developed. The blue product, on its turn, is converted towards a yellow derivative of which the absorbance can be measured at 450 nm.

**Lab equipment**

Multiplate reader.

**Method status**

History of use

**PROS, CONS & FUTURE POTENTIAL**

**Advantages**

Easy to use.

**REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION**

**References**