Global Technology.
Local Solutions.
EZ4U – CELL PROLIFERATION & CYTOTOXICITY ASSAY

Proliferation assays are widely used in cell biology for the study of growth factors, cytokines, nutrients and for the screening of cytotoxic or chemo-therapeutic agents. The EZ4U cell proliferation and cytotoxicity assay is based on the capability of living cells to reduce slightly coloured or uncoloured tetrazolium salts in the mitochondria into intensely coloured formazan derivates. This water soluble formazan is secreted into the culture medium and can be measured with a standard colorimetric reader.

The EZ4U system is well suited for a variety of biological tests, where cell viability is of importance. It offers advantages over conventional dye or 3H incorporation assays. Due to its soluble end products it is easier and faster to perform than other non-radioactive cell viability assays. Furthermore, because the assay procedure is identical to the thymidine incorporation procedure, no changes in test protocols are necessary. An important benefit is the possibility of an ongoing cultivation after cell number determination and easy to adapt incubation times due to the non-toxic substrate.

METHOD COMPARISON

<table>
<thead>
<tr>
<th>EZ4U</th>
<th>MTT</th>
<th>THYMICINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD SUBSTRATE</td>
<td>REMOVE SUPERNATANT</td>
<td>ADD THYMIDINE</td>
</tr>
<tr>
<td>INCUBATE 2-5 h</td>
<td>INCUBATE 4 h</td>
<td>INCUBATE 6-36 h</td>
</tr>
<tr>
<td>ELISA READER</td>
<td></td>
<td>HARVEST DRY FILTERS</td>
</tr>
<tr>
<td></td>
<td>ADD SOLUBILISER</td>
<td>PLACE FILTERS IN VIALS</td>
</tr>
<tr>
<td></td>
<td>INCUBATE 1 h</td>
<td>ADD SCINTILLATION COCKTAIL</td>
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<tr>
<td></td>
<td>MIX BY PIPETTING</td>
<td>COUNT IN BETA-COUNTER</td>
</tr>
<tr>
<td></td>
<td>ELISA READER</td>
<td></td>
</tr>
</tbody>
</table>

FEATURES & BENEFITS

• easy handling
• convenient
• fast
• non-toxic
• non-radioactive
• reliable
• sensitive

ASSAY CHARACTERISTICS

Cat.No. BI-5000
Method Reduction of tetrazolium salt to coloured formazan
Sample type cell culture medium
Sample size 200 μl / test, 10x96 tests
Detection limit depending on cell lines
Incubation time 2 - 5 h

LITERATURE


Autoantigenic targets of B-cell receptors derived from chronic lymphocytic leukemias bind to and induce proliferation of leukemic cells. Carsten Zwick C et al., Blood, Jun 2013; 121: 4708-4717.


