Overview

Product name: BrdU Cell Proliferation ELISA Kit (colorimetric)
Detection method: Colorimetric
Sample type: Adherent cells, Suspension cells
Assay type: Sandwich (qualitative)
Sensitivity: < 40 cells/well
Assay time: 2h 30m
Assay duration: Multiple steps standard assay

Product overview:

ab126556 involves incorporation of BrdU into cells cultured in microtiter plates using the cell layer as the solid phase. During the final 2 to 24 hours of culture BrdU is added to wells of the microtiter plate. BrdU will be incorporated into the DNA of dividing cells. To enable antibody binding to the incorporated BrdU cells must be fixed, permeabilized and the DNA denatured. This is all done in one step by treatment with Fixing Solution. Detector anti-BrdU monoclonal antibody is pipetted into the wells and allowed to incubate for one hour, during which time it binds to any incorporated BrdU. Unbound antibody is washed away and horseradish peroxidase-conjugated goat anti-mouse antibody is added, which binds to the Detector Antibody.

The horseradish peroxidase catalyzes the conversion of the chromogenic substrate tetramethylbenzidine (TMB) from a colorless solution to a blue solution (or yellow after the addition of stopping reagent), the intensity of which is proportional to the amount of incorporated BrdU in the cells. The colored reaction product is quantified using a spectrophotometer.

The resultant assay is sensitive, rapid, easy to perform and applicable to high sample throughput. In addition to evaluation of cell proliferation, information such as cell number, morphology and analysis of cellular antigens can be obtained from a single culture.

Tested applications: Suitable for: Indirect ELISA
Platform: Microplate

Properties

Storage instructions: Store at +4°C. Please refer to protocols.
Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity/Volume</th>
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</thead>
<tbody>
<tr>
<td>BrdU Reagent</td>
<td>1 x 15µl</td>
</tr>
<tr>
<td>Conjugate Diluent</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Fixing Solution</td>
<td>2 x 20ml</td>
</tr>
<tr>
<td>Peroxidase Goat anti-mouse IgG (2000X)</td>
<td>1 x 15µl</td>
</tr>
<tr>
<td>Plate wash concentrate (50X)</td>
<td>1 x 90ml</td>
</tr>
<tr>
<td>Prediluted anti-BrdU detecting antibody</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>TMB Substrate</td>
<td>1 x 25ml</td>
</tr>
</tbody>
</table>

Applications

Our Abpromise guarantee covers the use of ab126556 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Indirect ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
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</table>

Images

Cell proliferation measured in fibroblasts showing cell amounts vs. optical densities

Indirect ELISA - ab126556 BrdU Cell Proliferation ELISA Kit (colorimetric)
Detection of RH7777 (adherent) cells per well with 2 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.

Detection of RH7777 (adherent) cells per well with 24 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.

Detection of Jurkat cells (non-adherent) per well with 2 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.
Detection of Jurkat cells (non-adherent) per well with 24 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.

Detection of MCF7 cells per well with 2 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.

Detection of MCF7 cells per well with 24 hour pulse with BrdU. Y axis - left, OD 450-550 nm. Y axis-right, signal-to-noise ratio.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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