TUNEL Assay Kit - In situ Direct DNA Fragmentation

Overview

Product name: TUNEL Assay Kit - In situ Direct DNA Fragmentation
Sample type: Adherent cells, Suspension cells
Assay type: Direct
Product overview: Abcam's TUNEL Assay Kit - In situ Direct DNA Fragmentation provides complete components including positive and negative control cells for conveniently detecting DNA fragmentation by fluorescence microscopy or flow cytometry. The TUNEL-based detection kit utilizes terminal deoxynucleotidyl transferase (TdT) to catalyze incorporation of fluorescein-12-dUTP at the free 3'-hydroxyl ends of the fragmented DNA. The fluorescein-labeled DNA can then be analyzed by flow cytometry.

Notes: This kit is FITC-labeled (Ex/Em = 495/519nm). If want to use BrdU-Red (Ex/Em = 488/576nm) as a label, we recommend our In situ BrdU-Red DNA Fragmentation (TUNEL) Assay Kit (ab66110).

Tested applications: Suitable for: Flow Cyt

Properties

Storage instructions: Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>50 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC-dUTP</td>
<td>Orange</td>
<td>1 x 0.4ml</td>
</tr>
<tr>
<td>Negative Control Cells</td>
<td>Neutral</td>
<td>1 x 5ml</td>
</tr>
<tr>
<td>PI/RNase Staining Buffer</td>
<td>Amber bottle</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Positive Control Cells</td>
<td>Brown</td>
<td>1 x 5ml</td>
</tr>
<tr>
<td>Reaction Buffer</td>
<td>Green</td>
<td>1 x 500μl</td>
</tr>
<tr>
<td>Rinse Buffer</td>
<td>Red</td>
<td>1 x 100ml</td>
</tr>
<tr>
<td>TdT Enzymes</td>
<td></td>
<td>1 x 38μl</td>
</tr>
</tbody>
</table>
Relevance

Internucleosomal DNA fragmentation is a hallmark of apoptosis in mammalian cells.

Applications

Our Abpromise guarantee covers the use of ab66108 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>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Images

Voloboeva et al used TUNEL assay ab66108 to examine the effect of miR-210 inhibition on mitochondrial function and protection against apoptosis.

The reduced number of TUNEL+ve green cells in panel F indicates that the inhibition of miR-210 reduces the degree of apoptosis in cells treated with media preconditioned (CM) by proinflammatory activated microglia.

Green is TUNEL staining. Red is immunostaining of DCX protein. Representative images are shown.
Control RAW 264.7 cells.

RAW 264.7 cells treated with 2 μM camptothecin (ab120115) for 24 hours prior to staining.

RAW 264.7 cells treated with 10 μM camptothecin (ab120115) for 24 hours prior to staining.
Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors