

TUNEL Assay Kit - FITC ab66108

68 References **4 图像**

概述

产品名称	TUNEL Assay试剂盒- FITC荧光
检测方法	Fluorescent
样品类型	Adherent cells, Suspension cells
检测类型	Direct
检测时间	2h 30m
产品概述	TUNEL Assay Kit - FITC ab66108 provides complete components, including positive and negative control cells, for detecting DNA fragmentation by fluorescence microscopy or flow cytometry.

The TUNEL assay is used to detect DNA fragmentation, such as in apoptosis. It uses terminal deoxynucleotidyl transferase (TdT) to catalyze the incorporation of deoxynucleotides at the free 3'-hydroxyl ends of fragmented DNA. The deoxynucleotides are then labeled in a variety of ways for detection of the degree of DNA fragmentation.

The TUNEL assay protocol in this kit uses the deoxynucleotide fluorescein-12-dUTP. DNA which has been labeled with fluorescein can then be analyzed by flow cytometry or fluorescence microscopy with Ex/Em 488/520 nm. Propidium iodide is also included in this kit as a counterstain with Ex/Em 488/623 nm.

TUNEL assay protocol summary:

- fix cells with formaldehyde for 15 min on ice
- wash with PBS
- add ice-cold 70% ethanol and incubate for 30 min
- pellet cells and resuspend in wash buffer and wash again
- pellet cells and resuspend in staining solution and incubate for 60 min at 37°C
- add rinse buffer, pellet cells and discard supernatant, and rinse again
- resuspend cells in propidium iodide/RNase A solution and incubate for 30 min at room temp
- analyze with flow cytometer or fluorescence microscope

说明

This product is manufactured by BioVision, an Abcam company and was previously called K402 ApoDIRECT DNA Fragmentation Assay Kit. K402-50 is the same size as the 50 test size of ab66108.

This kit is FITC-labeled (Ex/Em = 495/519nm). It was previously called TUNEL Assay Kit - In situ Direct DNA Fragmentation.

To use BrdU-Red (Ex/Em = 488/576nm) as a label, we recommend **TUNEL Assay Kit - BrdU-Red (ab66110)**.

For chromogenic TUNEL staining, we recommend **TUNEL Assay Kit - HRP-DAB ab206386**.

Find out more about the TUNEL method in the **TUNEL staining / TUNEL assay guide**.

How other researchers have used FITC TUNEL Assay Kit ab66108

This TUNEL assay kit has been used in publications in a variety of sample types, including:

- Human: HUVEC cell cultures¹, AGS gastric carcinoma cells by imaging², gastric tumor cell xenograft cells by flow cytometry³, MDA-MB-231 breast cancer xenograft tissue sections by imaging⁴, neural blastoma cell cultures by flow cytometry⁵, SH-SY5Y cells by flow cytometry⁶, A549 cells by flow cytometry⁷, Huh7 and HepG2 cell cultures by imaging⁸
- Mouse: liver tissue by imaging⁹, cultured neural stem cells by imaging¹⁰
- Rat: kidney tissue sections by imaging¹¹

References: 1 - De Felice F et al 2019, 2 - Li C et al 2019, 3 - Lau W Met al 2018, 4 - Chung SJ et al 2017, 5 - Sobham PK et al 2017, 6 - Albarran L et al 2016, 7 - Lamb SA et al 2014, 8 - Fu B et al 2016, 9 - Azam F et al 2018, 10 - Voloboueva LA et al 2017, 10 - Sun X et al 2015, 11 - Chen J et al 2015

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平台

Flow cytometer, Fluorescence microscope

性能

存放说明

Store at -20°C. Please refer to protocols.

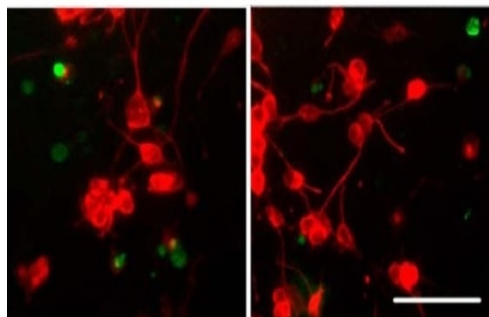
组件	50 tests	50 tests
FITC-dUTP	1 x 0.4ml	1 x 0.4ml
Negative Control Cells	1 x 5ml	1 x 5ml
PI/RNase Staining Buffer	1 x 25ml	1 x 25ml
Positive Control Cells	1 x 5ml	1 x 5ml
Reaction Buffer	1 x 500µl	1 x 500µl
Rinse Buffer	1 x 100ml	1 x 100ml
TdT Enzymes	1 x 38µl	1 x 38µl
Wash Buffer	1 x 100ml	1 x 100ml

相关性

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

图片

TUNEL staining
Dcx protein immunostaining



Control+CM

miR-210 Inh+CM

Voloboueva LA et al. J Neurosci 37:3072-3084 (2017)

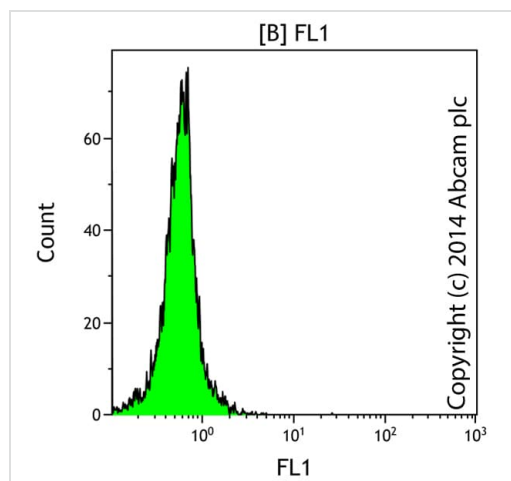
TUNEL assay staining

Voloboueva LA et al. J Neurosci 37:3072-3084 (2017)
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Voloboueva 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.

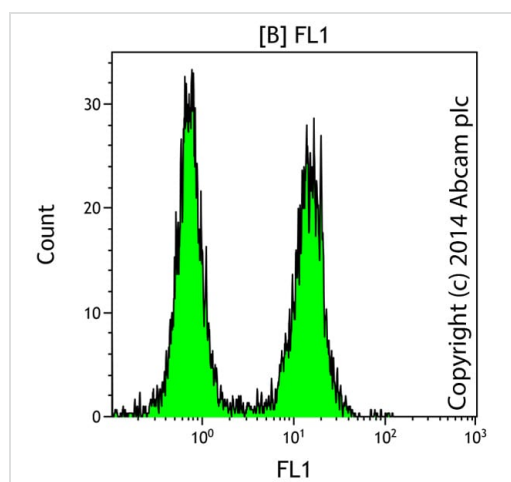
Green is TUNEL staining. Red is immunostaining of DCX protein. Representative images are shown.



Control RAW 264.7 cells.

Functional assays: In situ Direct DNA

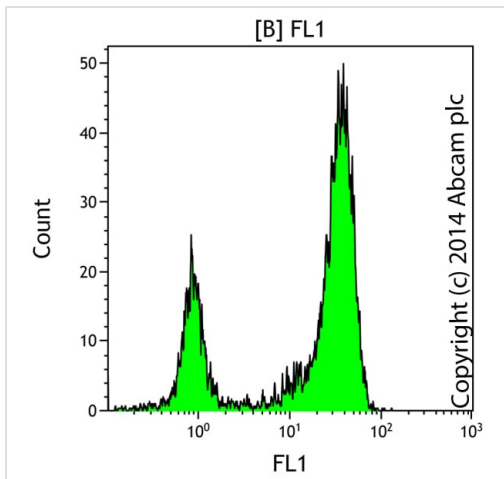
Fragmentation (TUNEL) Assay Kit (ab66108)



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

Functional assays: In situ Direct DNA

Fragmentation (TUNEL) Assay Kit (ab66108)



RAW 264.7 cells treated with 10 μ M camptothecin (**ab120115**) for 24 hours prior to staining.

Functional assays: In situ Direct DNA
Fragmentation (TUNEL) Assay Kit (ab66108)

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