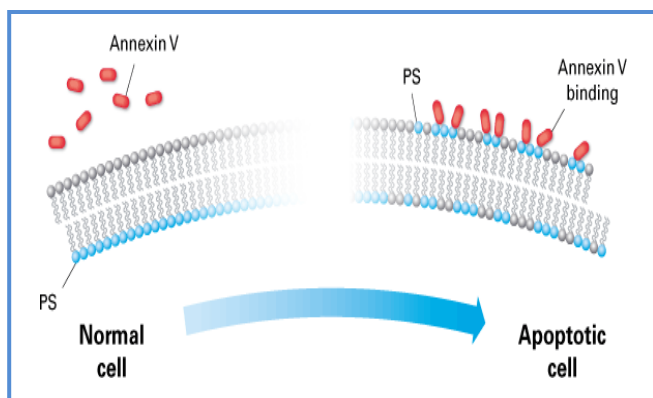


Annexin V-FITC/PI Apoptosis Kit (Catalog: TBS2108, 100 Assays, Store at -20 °C)

DESCRIPTION

Annexin V-FITC/PI Apoptosis Kit is designed to detect cell apoptosis induced by a variety of stimuli. It is based on the translocation of the membrane phosphatidylserine (PS) from the inner face of the plasma membrane in normal status to the cell surface after apoptosis initiation (Fig.1). PS on the cell surface can be detected by staining with a fluorescent conjugate of Annexin V, a protein that has a high affinity for PS. The detection can be analyzed by flow cytometry or by fluorescence microscopy. The kit can differentiate between apoptosis and necrosis when performing both Annexin V-FITC and propidium iodide (PI) staining. Apoptotic cells show green fluorescence (FITC), dead cells show red (PI) and green fluorescence, and live cells show little or no an argon-ion laser for excitation.

Fig. 1: Annexin V-FITC Apoptosis Detection Principle



APPLICATIONS

1. Cell apoptosis
2. Cell necrosis.

FEATURES

- ❖ Fast: Just 10-15min
- ❖ Easy: One step.
- ❖ Reproducible.

KIT CONTENTS FOR 100 TESTS:

Name	Part#	Size
Annexin V FITC	A	0.5 mL
Propidium Iodide (PI, B)	B	0.5 mL
10x Binding Buffer	C	8 mL

Storage conditions: Store the Reagent at 4°C protected from light. Shelf life: 12 months.

PROCEDURES

Preparation Annexin V Binding Buffer

Add 1part Annexin V Binding Buffer Stock to 9 parts of DD-water to make 1x Annexin V Binding buffer.

Flow Cytometry

1. Induce apoptosis by desired method.
2. Collect 1-5 x 10⁵ cells by centrifugation (400 xg, 3min). Carefully aspirate supernatant.
3. Resuspend cells in 100µl of 1X Binding Buffer
4. Add 5µl of Annexin V-FITC and 1 µl PI.
5. Incubate at room temperature for 10 - 15 min in the dark.
6. Analyze Annexin V-FITC binding by flow cytometry (Ex = 488 nm; Em = 530 nm) using FITC signal detector (usually FL1) and PI staining by the phycoerythrin emission signal detector (usually FL2).

For adherent cells, gently trypsinize and wash cells once with serum-containing media before incubation with Annexin V-FITC /PI.

Detection by Fluorescence Microscopy:

1. Induce apoptosis by desired method.
2. Collect cells by centrifugation (400 xg, 3min). Carefully aspirate supernatant.
3. Resuspend cells in 100µl of 1X Binding Buffer
4. Add 5µl of Annexin V-FITC and 1 µl PI.
5. Incubate at room temperature for 10 - 15 min in the dark.
6. Place the cell suspension on a glass slide. Cover with a glass coverslip.
7. Examine the cells by fluorescence microscopy. Cells must be analyzed immediately. Dead cells are stained by PI, which has excitation and emission maxima at 535 nm and 617 nm, respectively. Apoptotic cells stained by annexin V FITC can be detected using a fluorescence filter at excitation /emission=485/535.

RELATIVE PRODUCTS

Resazurin Cell Viability Kit (TBS2001)
 LDH Cytotoxicity Assay (TBS2002)
 MTT Cell Viability Assay (TBS 2003)
 ATP Colorimetric/Fluorometric Assay Kit (TBS2010)
 ADP Colorimetric/Fluorometric Assay Kit (TBS2020)
 XTT Cell Viability Assay (TBS2021)
 CCK-8 Cell Viability Assay (TBS2022)
 Caspase-3 Colorimetric Assay kit (TBS2030)
 AOPI Viability Assay for Flow Cytometry (TBS2069)
 BrdU Cell Proliferation Colorimetric Assay (TBS2086)
 Cytochrome c Reductase Activity Assay (TBS2116)
 GOT Activity Assay (TBS2013)
 Thiol Fluorometric Assay (TBS2026)
 GSH Assay (TBS2028)
 Homocysteine Fluorometric Assay (TBS2091)
 AHCY Inhibitor Screening Assay (TBS2097)