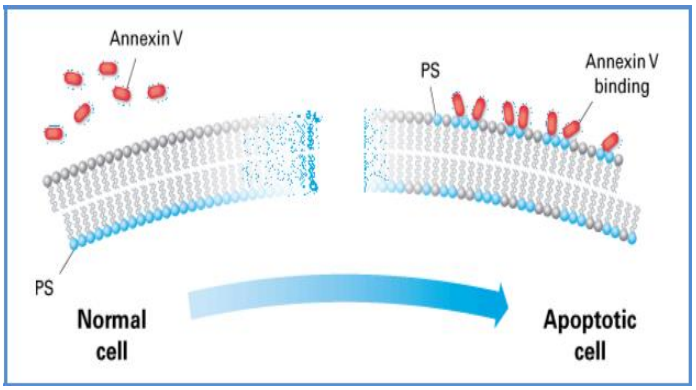
Annexin V Binding Assay (TBS2108)

DESCRIPTION

Annexin V Binding 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. 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 PI staining.



APPLICATIONS

1. Cell apoptosis
2. Cell necrosis.

FEATURES

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

KIT CONTENTS FOR 100 TESTS:

Component	Size
Annexin V FITC	**0.5 mL**
10x Binding Buffer	**50 mL**
Propidium Iodide	**0.5 mL**

Storage conditions: Store the Reagent at 4°C. Shelf life: 6 months.

This product is for *in vitro* research use only, not for use in therapeutic or diagnostic procedures of humans or animals.

PROCEDURES

1. Staining Cells with Annexin V FITC:
A: Induce apoptosis by desired method.
B: Collect 1-5 x 10^5 cells by centrifugation.
C: Resuspend cells in 500µl of 1X Binding Buffer
D: Add 5µl of Annexin V-FITC and 5 µl of propidium iodide (PI 50 ug/ml, optional.)
E: Incubate at room temperature for 5 min in the dark.

2. Analyzing Staining Cells with Flow Cytometry:
A: 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.

3. Detection by Fluorescence Microscopy:
A. For analyzing nonadherent cells, place the cell suspension from Step 1E on a glass slide. Cover with a glass coverslip.
B: For analyzing adherent cells, following incubation (1 B-E), invert coverslip on glass slide and visualize cells. After incubating with an- nexin V, the cells can be washed and fixed in 2% formaldehyde. Observe the cells under a fluorescence microscope using a dual filter set for FITC & rhodamine.

RELATIVE PRODUCTS

Resazurin Cell Viability Kit (TBS2001)
ATP Colorimetric/Fluorometric Assay Kit (TBS2010)
ADP/ATP Ratio Assay Kit(Bioluminescent (BS2015)
ADP Colorimetric/Fluorometric Assay Kit (TBS2020)
Caspase-3 Colorimetric Assay kit (TBS2030)
Caspase-3 Fluorometric Assay kit (TBS2035)
Tunnel Assay (TBS2111)

REFERENCES

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Nicholson, D. W. (1996) ICE/CED3-like proteases as therapeutic targets for the control of inap- propriate apoptosis. *Nature Biotechnol.* **14**:297–301.