



Annexin V Apoptosis Detection Kit

100 Reactions

Cat. No: XV011CA (FITC)

Cat. No: XV013CA (Biotin)

Cat. No: XV012CA (APC)

Cat. No: XV014CA (PE)

Introduction

Annexins are a family of calcium-dependent phospholipid-binding proteins which bind to phosphatidylserine (PS).

Externalization of phosphatidylserine residues on the outer plasma membrane of apoptotic cells allows detection using Annexin V. Once the apoptotic cells are bound with labeled Annexin V, they can be visualized with fluorescent microscopy or cytometry.

Since loss of membrane integrity is a pathognomonic feature of necrotic cell death, necrotic cells will stain with specific membrane-impermeant nucleic acid dyes such as propidium iodide. The membrane integrity of apoptotic cells can be demonstrated by the exclusion of these dyes.

Applications

- Detect early/middle stages of apoptosis
- Differentiate apoptosis from necrosis

Kit Contents

Components	100 Reactions
Labeled Annexin V	1 x 500 μ l
10X Binding Buffer	1 x 50 ml
Propidium Iodide Solution (100 μ g/ml)	1 x 500 μ l

Caution: Propidium iodide is a suspected carcinogen; contact with eyes, skin, and mucous membranes should be avoided. Always wear proper protective clothing and gloves when handling the solution.

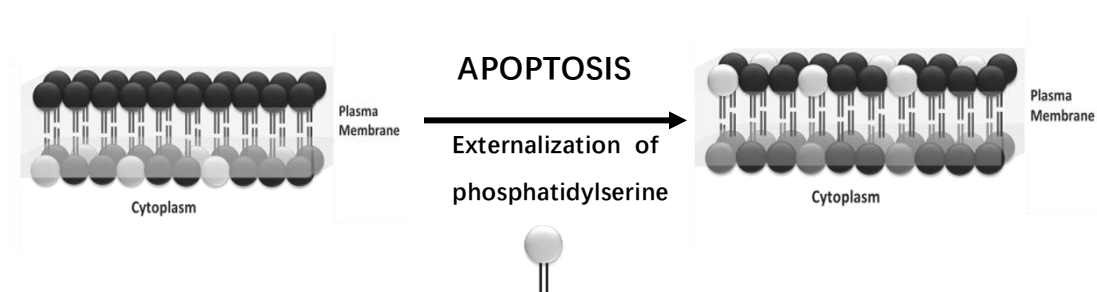
Storage & Shelf Life

The components of the Annexin V Apoptosis Detection Kit are stable for 1 year at 4°C. Store protected from light.

Important: DO NOT FREEZE

Protocol

1. Dilute the 10X Binding Buffer with dH₂O to 1X and keep on ice.
2. Collect cells of interest by centrifugation. Wash cells with ice-cold culture medium or PBS.
3. Resuspend cells in 1X Binding Buffer at a concentration of 1×10^6 cells/ml.
4. Transfer 500 μ l of cell suspension into a 5 ml test tube.
5. Add 5 μ l of labeled Annexin V.
6. Add 10 μ l of Propidium Iodide Solution.
7. Gently vortex the cells and incubate for 15 min at room temperature (25°C) in the dark.
8. Wash cells in 1X Binding Buffer and resuspend in 400 μ l of 1X Binding Buffer.
9. Analyze by flow cytometry with proper machine settings.



PRODUCT USE LIMITATION This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.