

Annexin V-Cy3 Apoptosis Staining / Detection Kit with SYTOX ab14144

9 References

Overview

Product name	Annexin V-Cy3 Apoptosis Staining / Detection Kit with SYTOX
Sample type	Adherent cells, Suspension cells
Assay type	Direct
Assay time	0h 10m
Product overview	<p>Annexin V-Cy3 Apoptosis Staining / Detection Kit with SYTOX (ab14144) includes Annexin V-Cy3, SYTOX green dye, and binding buffer. It can be used in a 10 min, one-step staining procedure to detect apoptosis and necrosis. Analysis is by flow cytometry or fluorescence microscopy.</p> <p>The SYTOX green dye is impermeant to live cells and apoptotic cells, but stains necrotic cells with intense green fluorescence by binding to cellular nucleic acids.</p> <p>After staining a cell population with annexin V-Cy3 and SYTOX Green dye in binding buffer, apoptotic cells show red fluorescence, dead cells show green fluorescence and live cells show little or no fluorescence.</p> <p>These populations can easily be distinguished by fluorescence microscopy using FITC and rhodamine filters or by flow cytometry using the FL1 channel (Ex. 488 nm/Em. 530 nm) for SYTOX Green dye and FL2 channel for Annexin V-Cy3 (Ex. 543 nm/Em. 570 nm).</p> <p>The Annexin V-Cy3 reagent contained in the kit is also available as Annexin V-Cy3 reagent <u>ab14082</u>.</p>
Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K202 Annexin V-Cy3 Apoptosis Kit Plus. K202-100 is the same size as the 100 test size of ab14144.</p> <p>The Annexin V apoptosis assay is based on the observation that soon after initiating apoptosis, cells translocate the membrane phospholipid phosphatidylserine (PS) from the inner face of the plasma membrane to the cell surface. Once on the cell surface, PS can easily be detected by staining with a fluorescent conjugate of Annexin V, a protein that has a strong natural affinity for PS.</p> <p>For more apoptosis assays, review the full set of <u>Annexin V assays</u>, or the <u>apoptosis assay and apoptosis marker guide</u>.</p>

Platform

Flow cytometer, Fluorescence microscope

Properties**Storage instructions**

Store at +4°C. Please refer to protocols.

Components	100 tests
Annexin V-Cy3	1 x 500µl
Binding Buffer	1 x 50ml
SYTOX Green Dye	1 x 100µl

Function

This protein is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade.

Involvement in disease

Pregnancy loss, recurrent, 3

Sequence similarities

Belongs to the annexin family.
Contains 4 annexin repeats.

Domain

The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex.
A pair of annexin repeats may form one binding site for calcium and phospholipid.

Post-translational modifications

S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-density lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

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