# abcam

# Product datasheet

# Annexin V- DY-634 PI Apoptosis Staining / Detection Kit ab214484

2 References 2 图像

#### 概述

产品概述

产品名称 Annexin V- DY-634 PI Apoptosis Staining / Detection试剂盒

检测方法 Fluorescent

样品类型 Adherent cells, Suspension cells

检测类型 Cell-based (quantitative)

种属反应性 与反应: Mammals, Other species

Annexin V- DY-634 PI Apoptosis Staining / Detection Kit (ab214484) contains Annexin V labeled with DY-634, which allows the identification and quantitation of apoptotic cells on a single-cell basis by flow cytometry. Simultaneous staining of cells with Annexin V – DY634 (red fluorescence) and the non-vital dye propidium iodide (PI) (orange fluorescence) allows the discrimination of intact cells (AnnexinV-DY-634 negative, PI Staining Solution negative), early apoptotic (Annexin V-DY-634 positive, PI Staining Solution negative) and late apoptotic or necrotic cells (Annexin V-DY-634 positive, PI Staining Solution positive).

DY-634 can be used as direct replacement for APC.

For more apoptosis assays, review the full set of **Annexin V assays**, or the **apoptosis assay and apoptosis marker guide**.

Apoptosis is a regulated process of cell death that occurs during embryonic development as well as maintenance of tissue homeostasis. Inappropriately regulated apoptosis is implicated in different disease states, such as neurodegeneration disease and cancer. The apoptosis program is characterized by morphologic features, including loss of plasma membrane asymmetry and attachment, condensation off the cytoplasm and nucleus, and compaction and fragmentation of the nuclear chromatin. Exposure of phosphatidylserine (PS) on the external surface of the cell membrane has been reported to occur in the early phases of apoptotic cell death, during which the cell membrane remains intact. In leukocyte apoptosis, PS on the outer surface of the cell marks the cell for recognition and phagocytosis by macrophages. The human vascular anticoagulant, annexin V, is a 35-36 kDa Ca<sup>2+</sup> dependent phospholipid binding protein that has a high affinity for PS, and shows minimal binding to phosphatidylcholine and sphingomyelin. Changes in PS asymmetry, which can be analyzed by measuring annexin V binding to the cell membrane, are generally observed before morphological changes associated with apoptosis occurred and before membrane integrity is lost.

说明

# 性能

#### 存放说明

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

组件	100 tests
Annexin V DY-634 Conjugate (in PBS, pH 7.4)	1 x 500µl
Propidium lodide Staining Solution (in PBS, pH 7.4)	1 x 500µl
10X Binding Buffer Concentrate	1 x 50ml

功能 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.

**疾病相关** Pregnancy loss, recurrent, 3

序列相似性 Belongs to the annexin family.

Contains 4 annexin repeats.

结**构域** The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the

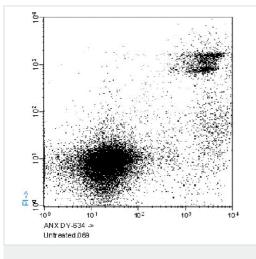
iNOS-S100A8/A9 transnitrosylase complex.

A pair of annexin repeats may form one binding site for calcium and phospholipid.

翻译后修饰 S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-densitity lipoprotein

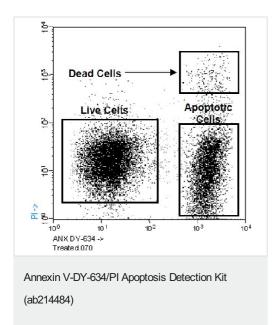
(LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

# 图片



Annexin V-DY-634/PI Apoptosis Detection Kit (ab214484)

Untreated Jurkat cells were stained with Annexin V-DY-634/PI Apoptosis Detection Kit (ab214484), following assay protocol.



Jurkat cells treated with 6  $\mu$ M camptothecin for four hours were stained with Annexin V-DY-634/PI Apoptosis Detection Kit (ab214484), following assay protocol. Gating showing the different populations of live, dead and apoptotic cells are shown in the figure.

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