

Annexin V Detection Kit

Annexin V-APC/7-AAD Apoptosis Detection Kit

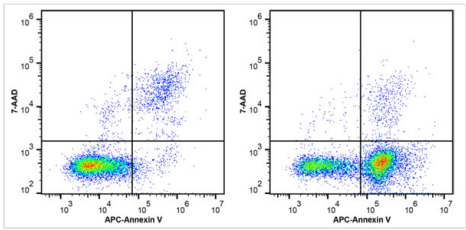
CATALOG #
AAA174686

PRODUCT SYNONYMS

Annexin V; Annexin V-APC/7-AAD Apoptosis Detection Kit; Annexin V detection kit

PRODUCT SPECIFICATIONS

Related Products	Annexin V-FITC Reagent Annexin V-AF647 Reagent Annexin V-PE Reagent Annexin V-APC Reagent Annexin V-EGFP Reagent Annexin V Binding Buffer(10 ×) Propidium Iodide (PI) Staining Solution 7-AAD Viability Staining Solution Annexin V-FITC / PI Apoptosis Detection Kit Annexin V-FITC / 7-AAD Apoptosis Detection Kit Annexin V-AF647 / PI Apoptosis Detection Kit Annexin V-AF647 / 7-AAD Apoptosis Detection Kit Annexin V-PE / 7-AAD Apoptosis Detection Kit Annexin V-APC / PI Apoptosis Detection Kit Annexin V-EGFP / PI Apoptosis Detection Kit Annexin V-EGFP / 7-AAD Apoptosis Detection Kit
Instructions	The Annexin V Binding Buffer (10 ×) is a 10 × concentrated solution. Dilute with DI water to 1 × working solution before use. For example: Take 1 mL Annexin V Binding Buffer (10 ×), dilute with DI water to 10 mL.
Staining Procedure	1. Induce apoptosis of suspension cells with reagents of interest. Collect cell cultures and centrifuge at 300 g for 5 min, discard the supernatant. Add appropriate PBS to wash the cells, resuspend gently and count the cells. Note: This product is only validated in suspension cells. Good cell viability is the key to the experiment. When the adherent cells are used for apoptotic detection, treatments like digestion may increase the ratio of necrotic or apoptotic cells and cause uncontrollable effects on the experimental results. Please be aware! 2. Split the cell suspension into tubes, $1-5 \times 10^5$ cells for each. Centrifuge at 300 g for 5 min, discard the supernatant. Add appropriate PBS to wash the cells and discard the supernatant. Add 500 uL of 1 × Annexin V Binding Buffer to resuspend the cells. 3. Add 5 ul of Annexin V-APC and 5 ul of 7-AAD Viability Staining Solution to each tube. 4. Gently vortex the cells and incubate at room temperature for 15-20 min in the dark. 5. Analyze the cells immediately with proper machine settings. Otherwise, place the cells on ice in the dark and analyze within 1h.
Cautions	1. For maximal assay performance, this kit should be used within 3-6 months. Avoid freeze / thaw cycles. 2. Detect apoptosis as soon as possible after staining to avoid the increase number of apoptosis or necrosis. 3. Avoid extended exposure of the samples to direct light to protect the fluorophores from quenching. 4. For your safety and health, please wear the lab coat and disposable gloves before the experiments.
Preparation and Storage	Annexin V-APC and 7-AAD Viability Staining Solution should be stored in dark. 7-AAD Viability Staining Solution should be split into small tubes and storage at -20°C. Other reagents should be stored at 4 °C. Cautions: 1. For maximal assay performance, this kit should be used within 3-6 months. Avoid freeze / thaw cycles. 2. Detect apoptosis as soon as possible after staining to avoid the increase number of apoptosis or necrosis. 3. Avoid extended exposure of the samples to direct light to protect the fluorophores from quenching. 4. For your safety and health, please wear the lab coat and disposable gloves before the experiments.



Application Data
Jurkat cells were treated with 1uM Camptothecin (Right) or not (Left) for 4 h. Annexin V-APC single-positive cells were early apoptotic cells, Annexin V-APC and 7-AAD double-positive cells were necrotic or late apoptotic cells, and 7-AAD single-positive cells were nude nuclear cells.

ADDITIONAL INFORMATION

Related Product Information for Annexin V detection kit	Annexin V-APC/7-AAD Cell Apoptosis Detection kit is developed to identify apoptotic and necrotic cells. Annexin V is a member of the annexin family, which binds to phosphatidylserine (PS) in a calcium-dependent manner. The fluorescent format of this intracellular protein, Annexin V-APC, binds specifically to the PS on outer leaflet of cell membrane by flow cytometry or fluorescence microscopy. 7-AAD (7-amino-actinomycin D) has a high DNA binding constant and is efficiently excluded by intact cells. It is useful for DNA analysis and dead cell discrimination during flow cytometric analysis. Due to the loss of integrity of membrane, 7-AAD can enter late apoptotic or necrotic cells to stain DNA. Cells at different apoptotic stages can be distinguished by using Annexin V and 7-AAD.
Product Categories/Family for Annexin V detection kit	Apoptosis Detection Kit

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.