

Advanced Cell Apoptosis and Necrosis Quantification Kit

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Product description

The Advanced Cell Apoptosis and Necrosis Quantification Kit provides a convenient detection method to quantify apoptotic (green) and necrotic (red) cells in the same cell via flow cytometry or fluorescence microscopy.

- Simultaneously detect apoptotic and necrotic cells
- 15-30 minutes staining
- Next-generation CF®488A is brighter and more stable than FIT, and more cost-effective
- EthD-III is a better alternative to PI and EthD-I

Kit components

- ①CF®488A Annexin V (FITC Annexin V, recombinant, E. coli produced), Ex/Em: 490/515nm
- ②EthD-III, Ex/Em: 279, 532/625nm (contains DNA)
- ③5X Annex V Binding Buffer

During apoptosis, phosphatidylserine (PS) translocates from the inner to the outer



surface of the plasma membrane, targeting dying cells for phagocytosis. anticoagulant Annexin V is a 35-36 kDa Ca^{2+} -dependent phospholipid-binding protein with a high affinity for phosphatidylserine (PS). CF®48A-labeled Annexin V marks apoptotic cells with green fluorescence by binding to PS flipped to the outer leaflet. Compared to fluorescein/FITC, our CF®488 dye is unaffected by pH and has stronger photostability, making it a better alternative.

Necrosis is typically caused by severe cell damage. The integrity of internal organelles and the plasma membrane is lost, leading to the release of cell contents into the surrounding environment. Ethidium homodimer III (EthD-III) is a highly positively charged nucleic acid probe that is impermeable to live cells, but stains cells with compromised membrane integrity with red fluorescence. EthD-III is a superior alternative to propidium iodide (PI) and ethidium homodimer I because it has a significantly higher affinity for DNA and a higher fluorescence quantum yield.

Apoptosis and necrosis quantification kits provide a convenient method for quantifying apoptotic (green) and necrotic (red) cells in the same cell population by flow cytometry or fluorescence microscopy.

Kefan also provides custom-labeled Annexin V paired with commonly used dead/late apoptotic cell stains (Propidium Iodide-PI, SYTOX Green, EthD-III, 7-AAD, etc.) to customize the required apoptosis detection kits.



Product Nature

Cell apoptosis/viability marker: phosphatidylserine/Annexin V

Experimental subjects: intact/live cells

Detection methods: fluorescence microscopy, flow cytometry

Detection type: End-point detection

Color: Green/Red

Storage and transportation

Storage conditions: Store away from light at 4° C; valid for at least 6 months.

