

Apoptosis and Necrosis Quantification Kit

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specification: 50T

Product description

The cell apoptosis and necrosis quantification kit provides a convenient detection method to quantify apoptotic (green) and necrotic (red) cells in the same cell population via flow cytometry or fluorescence.

- Simultaneously detect apoptotic and necrotic cells
- 15-30 minutes staining
- EthD-III is a better alternative to PI and EthDI

Kit components:

- ①Fluorescein Annexin V (FITC Annexin V, recombinant, E. coli produced), Ex/Em: 498/517
- ②EthD-III, Ex/Em: 279, 532/625nm (contains DNA)
- ③5X Annexin V Binding

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). FITC-labeled Annexin V the PS flipped to the outer leaflet, labeling apoptotic cells with green fluorescence.

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

Product Nature

Cell apoptosis/viability marker: phosphatidylserine/Annexin V

Experimental subjects: intact/living cells

Detection methods: fluorescence microscopy, flow cytometry

Detection type: Endpoint detection





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Color: Green/Red

Storage and transportation

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

