abcam

Product datasheet

Caspase-6 (active) Staining Kit - Green Fluorescence ab219936

1 References 2 Images

Overview

Product name	Caspase-6 (active) Staining Kit - Green Fluorescence
Detection method	Fluorescent
Sample type	Adherent cells, Suspension cells
Assay type	Cell-based
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Caspase 6 (active) Staining Kit - Green Fluorescence (ab219936) is a sensitive fluorometric assay to measure caspase 6 activation in live cells. The assay uses FAM-VEID-FMK, which binds irreversibly to active caspase 6 in apoptotic cells. The fluorescent intensity of the FAM-VEID-FMK signal is proportional to the amount of active caspase 6 and can be easily detected at Ex/Em = 490/525 nm by fluorescence microscopy, flow cytometer, or fluorescent microplate reader.
Notes	Caspase activity assay kits are based on fluorescent inhibitors of caspases. These inhibitors are cell permeable and non-cytotoxic. Once inside the cell, the caspase inhibitors bind covalently to the active caspases. Caspase 6 is involved in the activation cascade of caspases responsible for apoptosis execution. Overexpression of caspase 6 promotes programmed cell death. It has been proven that caspase 6 has substrate selectivity for the peptide sequence Val-Glu-Ile-Asp (VEID). This kit uses FAM-VEID-FMK as a fluorescent indicator for caspase 6 activity. FAM-VEID-FMK irreversibly binds to activated caspase 6 in apoptotic cells.
Platform	Microplate reader, Fluor. microscope, Flow cyt.

Properties

Storage instructions	Store at -20°C. Please refer to protocols.

Components	25 tests
500X Hoechst	1 vial
500X Propidium Iodide	1 vial
FAM-VEID-FMK	1 vial

Components	25 tests
Washing Buffer	1 x 100ml

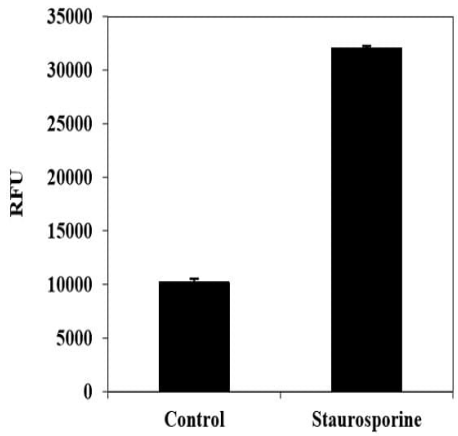
Relevance

Caspase 6 is involved in the activation cascade of caspases responsible for apoptosis execution. Cleaves poly(ADP-ribose) polymerase in vitro, as well as lamins. Overexpression promotes programmed cell death. Caspase 3 and Caspase 6 are the major active caspases in apoptotic cells, and are activated in response to distinct apoptosis inducing stimuli and in all cell lines analyzed. Both Caspase 3 and 6 are present in apoptotic cells as multiple active species. Caspase 6 cleaves nuclear mitotic apparatus protein (NuMA) and mediates the shrinkage and fragmentation of nuclei.

Cellular localization

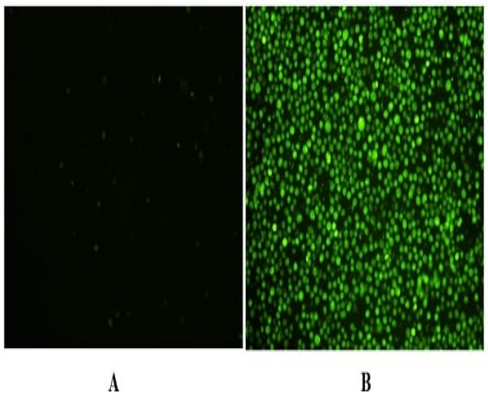
Cytoplasmic

Images



Caspase 6 (active) Staining Kit - Green Fluorescence (ab219936)

Detection of active Caspase 6 in Jurkat cells. Jurkat cells (3 x 10^5 cells/100 µL/well) were either untreated (control) or treated with 1 µM staurosporine for 3 hours. Cells were incubated with FAM-VEID-FMK for 1 hour at 37°C. The fluorescent signal was measured at Ex/Em = 490/525 nm (cut off at 515 nm) with a FlexStation microplate reader (Molecular Devices) using bottom read mode



Caspase 6 (active) Staining Kit - Green Fluorescence (ab219936)

Active caspase 6 staining in Jurkat cells. cells (3 x 10^5 cells/100 µL/well) were either untreated (A) or treated with 1 µM staurosporine for 3 hours (B). Cells were incubated with FAM-VEID-FMK for 1 hour at 37°C. Increase in fluorescent intensity was observed using a fluorescence microscope with a FITC channel.

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