abcam

Product datasheet

Generic Caspase Activity Assay Kit (Fluorometric - Green) ab112130

7 References 1 Image

Overview

Product name	Generic Caspase Activity Assay Kit (Fluorometric - Green)
Detection method	Fluorescent
Sample type	Adherent cells, Suspension cells
Assay type	Direct
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Abcam's Activity Assay kits are a set of tools for monitoring cellular functions. The activation of caspase is widely accepted as a reliable indicator for cell apoptosis. Most caspases have substrate selectivity for the peptide sequence Val-Ala-Asp (VAD). ab112130 uses TF2-VAD-FMK as a fluorescent indicator for most caspase activities. The cell permeable and nontoxic TF2-VAD-FMK irreversibly binds to activated caspase-1, -3, -4, -5, -6, -7, -8 and -9 in apoptotic cells. Once bound to caspases, the fluorescent reagent is retained inside the cell. The binding event prevents the caspases from further catalysis but will not stop apoptosis from proceeding. Within 15 minutes incubation, it starts to react with active caspase enzymes. ab112130 provides all the essential components with an optimized assay protocol. It is designed to detect cell apoptosis by measuring generic activation of caspases (caspase-1, -3, -4, -5, -6, -7, -8 and -9) in live cells. ab112130 is used for either the quantification of most activated caspase activities in apoptotic cells or screening of caspase inhibitors. TF2-VAD-FMK, the green label reagent, allows for direct detection of activated caspases in apoptotic cells by a flow cytometer at Ex/Em = 488/520 nm. Visit our **FAQs page** for tips and troubleshooting.
Notes	ab112130 should be stored dessicated. **Other caspase and apoptosis assays** Review the full set of **caspase assays**, or the **apoptosis assay and apoptosis marker guide**.
Platform	Flow cytometer

Properties

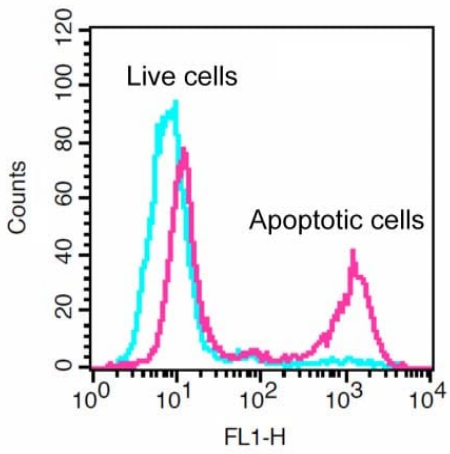
Storage instructions Store at -20°C. Please refer to protocols.

Components	100 tests
500 X TF2-VAD-FMK	1 x 100µl
500X Propidium Iodide	1 x 100µl
Assay Buffer	1 x 50ml

Relevance Caspases are members of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme.

Cellular localization Cytoplasmic

Images



Flow Cytometry - Generic Caspase Activity Assay Kit (Fluorometric - Green) (ab112130)

The increase in TF2-VAD-FMK (Component A) fluorescence intensity with the addition of Camptothecin in Jurkat cells. Jurkat cells were untreated (Blue) or with 20 µM camptothecin (Pink) in a 37 °C, 5 % CO_2 incubator for 4-5 hours, and then dye loaded with TF2-VAD-FMK for 1 hour.

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