

Product datasheet

Caspase 9 (active) Red Staining Kit ab65619

Overview

Product name	Caspase 9 (active) Red Staining Kit
Detection method	Fluorescent
Sample type	Adherent cells, Suspension cells
Assay type	Enzyme activity
Assay time	2h 00m
Product overview	Abcam's Caspase 9 (active) Red Staining Kit provides a convenient means for detecting activated caspase 9 in living cells. The assay utilizes the caspase 9 inhibitor LEHD-FMK conjugated to sulfo-rhodamine (Red-LEHD-FMK) as the fluorescent in situ marker. Red-LEHD-FMK is cell permeable, nontoxic, and irreversibly binds to activated caspase 9 in apoptotic cells. Visit our FAQs page for tips and troubleshooting.
Notes	<p>Activation of caspases plays a central role in apoptosis.</p> <p>Other caspase and apoptosis assays</p> <p>Review the full set of caspase assays, or the apoptosis assay and apoptosis marker guide.</p>
Platform	Microplate reader, Fluor. microscope, Flow cyt.

Properties

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

Components	100 tests
Red-LEHD-FMK	1 x 100µl
Wash Buffer	2 x 100ml
Z-VAD-FMK	1 x 10µl

Relevance

Caspases are cysteine proteases, expressed as inactive precursors, that mediate apoptosis by proteolysis of specific substrates. Caspases have the ability to cleave after aspartic acid residues. There are two classes of caspases involved in apoptosis; initiators (activation by receptor cluster) and effectors (activation by mitochondrial permeability transition). Proapoptotic signals autocatalytically activate initiator caspases, such as Caspase 8 and Caspase 9. Activated initiator caspases then process effector caspases, such as Caspase 3 and Caspase 7, which in turn cause cell collapse. Caspase 9 (also known as ICE like apoptotic protease 6 (ICE

LAP6), apoptotic protease Mch6, and apoptotic protease activating factor 3 (Apaf3)) is a member of the peptidase family C14 that contains a CARD domain. It is active as a heterotetramer and has been reported to have two isoforms. ProCaspase 9 is approximately 47 kD. It is present in the cytosol and, upon activation, translocates to the mitochondria. Caspase 9 is involved in the caspase activation cascade responsible for apoptosis execution and cleaves/activates Caspase 3 and Caspase 6. It becomes activated when recruited to the Apaf1/cytochrome c complex.

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