

Caspase-9 Inhibitor Assay Kit ab102497

画像数 4

製品の概要

製品名	Caspase-9 Inhibitor Assay Kit
検出方法	Fluorescent
サンプルの種類	Adherent cells, Suspension cells
アッセイタイプ	Quantitative
全工程の試験時間	1h 30m

製品の概要

Abcam's Caspase 9 Inhibitor Drug Detection Kit provides an effective means for screening caspase inhibitors using fluorometric methods. The assay utilizes synthetic peptide substrate LEHD-AFC (AFC, 7-amino-4-trifluoromethyl coumarin). Active caspase 9 cleaves the synthetic substrate to release free AFC which can then be quantified by fluorometry. Compounds to be screened can directly be added to the reaction and the level of inhibition of caspase 9 activity can be determined by comparison of the fluorescence intensity in samples with and without the testing inhibitors.

Visit our [FAQs page](#) for tips and troubleshooting.

特記事項

This product is manufactured by BioVision, an Abcam company and was previously called K159 Caspase-9 Inhibitor Drug Screening Kit (Fluorometric). K159-100 is the same size as the 100 test size of ab102497.

Caspases have been shown to play a crucial role in apoptosis induced by various deleterious and physiologic stimuli. Inhibition of caspases can delay apoptosis, implicating a potential role in drug screening efforts.

試験プラットフォーム Microplate reader

製品の特性

保存方法 Store at -20°C. Please refer to protocols.

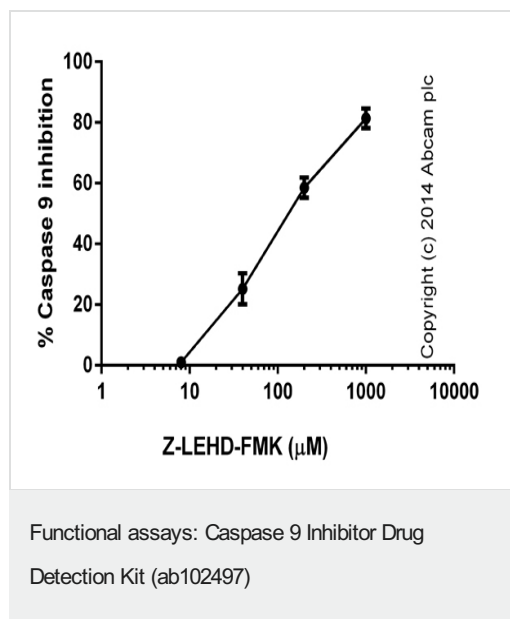
内容	100 tests
2X Reaction Buffer	1 x 10ml
Active Caspase-9	1 x 100 units
Caspase Inhibitor, Z-VAD-FMK (2 mM)	1 x 10µl

内容	100 tests
Caspase Substrate LEHD-AFC (1 mM)	1 x 0.5ml
DTT (1 M)	1 x 100µl

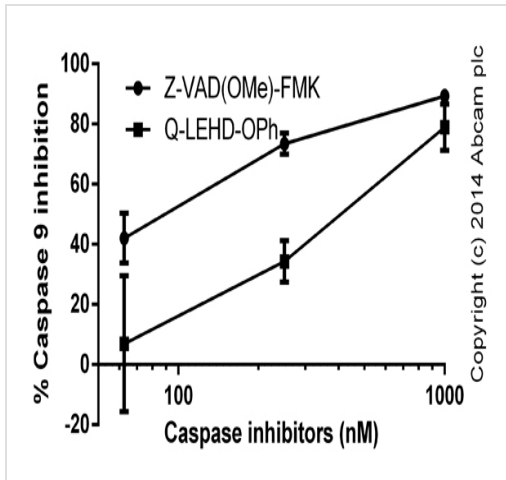
関連性

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.

画像

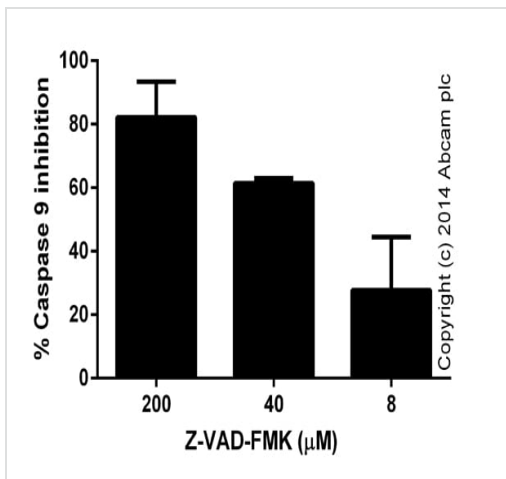


Titration of the caspase 9 inhibitor Z-LEHD-FMK ([ab142026](#)) (duplicates; +/- SD).



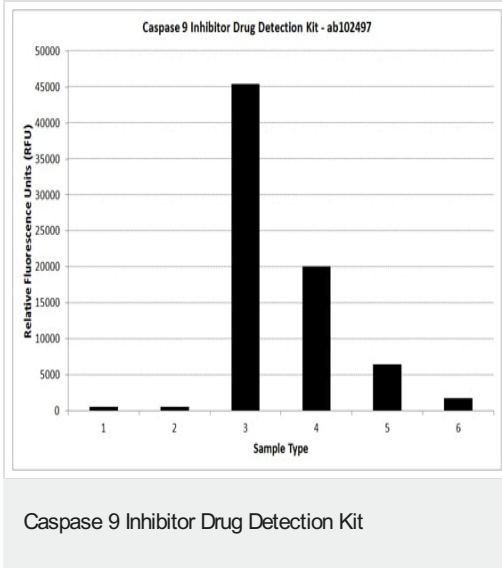
Titration of the caspase inhibitors Z-VAD(OMe)-FMK ([ab120487](#)) and Q-LEHD-Oph ([ab142039](#)) (duplicates; +/- SD).

Functional assays: Caspase 9 Inhibitor Drug
Detection Kit (ab102497)



Titration of caspase inhibitor Z-VAD-FMK ([ab102497](#)) (duplicates; +/- SD).

Functional assays: Caspase 9 Inhibitor Drug
Detection Kit (ab102497)



Caspase activity (RFU) in presence of 0 μ M - 40 μ M of z-VAD-FMK (generic caspase inhibitor), assessed using LEHD-AFC as caspase 9 substrate and following Caspase 9 Inhibitor Drug Detection Kit ([ab102493](#)) protocol. Lanes:

- 1.- Background Control: no Caspase 9, no z-VMAD-FMK
- 2.- Positive Inhibition Control: no Caspase 9, +z-VAD-FMK
- 3.- Positive Control: + Caspase 9, no z-VAD-FMK
- 4.- Caspase 9 + 2.5 μ M z-VAD-FMK
- 5.- Caspase 9 + 10 μ M z-VAD-FMK
- 6.- Caspase 9 + 40 μ M z-VAD-FMK

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