

Product datasheet

Caspase 3 Inhibitor Drug Detection Kit ab102491

3 图像

概述

产品名称	Caspase 3 Inhibitor Drug Detection试剂盒
检测方法	Fluorescent
样品类型	Adherent cells, Suspension cells
检测类型	Quantitative
检测时间	1h 30m
产品概述	<p>Abcam's Caspase 3 Inhibitor Drug Detection Kit provides an effective means for screening caspase inhibitors using fluorometric methods. The assay utilizes synthetic peptide substrate DEVD-AFC (AFC, 7-amino-4-trifluoromethyl coumarin). Active caspase 3 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 3 activity can be determined by comparison of the fluorescence intensity in samples with and without the testing inhibitors.</p> <p>Visit our FAQs page for tips and troubleshooting.</p>
说明	<p>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.</p>
经测试应用	适用于: Functional Studies
平台	Microplate

性能

存放说明 Store at -20°C. Please refer to protocols.

组件	100 tests
2X Reaction Buffer	1 x 10ml
Active Caspase-3	1 x 100 units
Caspase Substrate DEVD-AFC	1 x 0.5ml
Caspase-3 Inhibitor	1 x 10µl
DTT	1 x 100µl

相关性 The caspase family of cysteine proteases play a key role in apoptosis. Caspase 3 (also known

as CPP32, YAMA and apopain) is the most extensively studied apoptotic protein among caspase family members. Caspase 3 is synthesized as an inactive pro enzyme that is processed in cells undergoing apoptosis by self proteolysis and/or cleavage by other upstream proteases (e.g. Caspases 8, 9 and 10). The processed form of Caspase 3 consists of large (17kD) and small (12kD) subunits which associate to form an active enzyme. Caspase 3 is cleaved at Asp28 - Ser29 and Asp175 - Ser176. The active Caspase 3 proteolytically cleaves and activates other caspases (e.g. Caspases 6, 7 and 9), as well as relevant targets in the cells (e.g. PARP and DFF). Alternative splicing of this gene results in two transcript variants which encode the same protein. In immunohistochemical studies Caspase 3 expression has been shown to be widespread but not present in all cell types (e.g. commonly reported in epithelial cells of skin, renal proximal tubules and collecting ducts). Differences in the level of Caspase 3 have been reported in cells of short lived nature (eg germinal centre B cells) and those that are long lived (e.g. mantle zone B cells). Caspase 3 is the predominant caspase involved in the cleavage of amyloid beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease.

细胞定位

Cytoplasmic

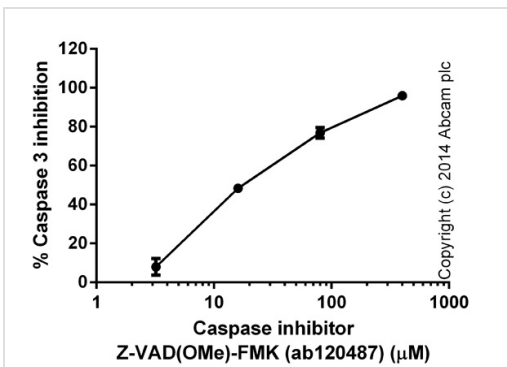
应用

Our [Abpromise guarantee](#) covers the use of **ab102491** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

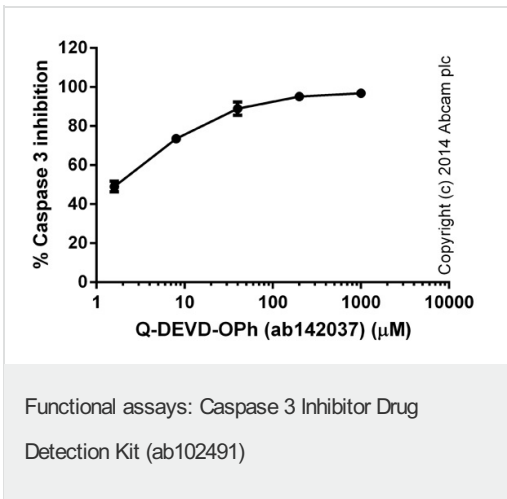
应用	Ab评论	说明
Functional Studies		Use at an assay dependent dilution.

Caspase 3 Inhibitor Drug Detection Kit 图像

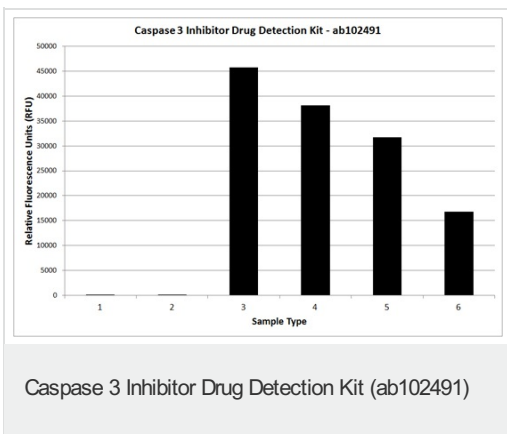


Titration of the Caspase inhibitor Z-VAD(OMe)-FMK ([ab120487](#)) (duplicates; +/- SD).

Functional assays: Caspase 3 Inhibitor Drug Detection Kit ([ab102491](#))



Titration of the Caspase 3 specific inhibitor Q-DEVD-OPh (ab142037) (duplicates; +/- SD).



Caspase activity (RFU) in presence of 0 μM - 40 μM of z-VAD-FMK (generic caspase inhibitor), assessed using DEVD-AFC as caspase 3 substrate and following Caspase 3 Inhibitor Drug Detection Kit (ab102491) protocol. Lanes:

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

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