

# Caspase-1 Assay Kit (Fluorometric) ab39412

[32 References](#) [2 图像](#)

### 概述

产品名称	Caspase-1 Assay试剂盒(Fluorometric)
检测方法	Fluorescent
样品类型	Tissue Extracts, Cell Lysate
检测类型	Enzyme activity
检测时间	2h 00m
产品概述	<p>Caspase-1 Assay Kit (Fluorometric) (ab39412) provides a simple and convenient method for detecting the activity of caspase-1, which recognizes the sequence YVAD.</p> <p>The caspase-1 assay protocol is based on the cleavage of substrate YVAD-AFC (AFC: 7-amino-4-trifluoromethyl coumarin). YVAD-AFC emits blue light (<math>E_m=400\text{ nm}</math>); upon cleavage of the substrate by caspase-1 or related caspases, free AFC emits a yellow-green fluorescence (<math>E_x/E_m=400/505\text{ nm}</math>), which can be quantified using a fluorometer or a fluorescence microtiter plate reader. Comparison of the fluorescence from a treated sample with an untreated control allows determination of the fold increase in caspase-1 activity.</p> <p>Caspase-1 assay protocol summary:</p> <ul style="list-style-type: none"> <li>- add samples to wells</li> <li>- add reaction buffer and YVAD-AFC substrate and incubate for 1-2 hr</li> <li>- analyze with a microplate reader</li> </ul>
说明	<p>This product is manufactured by BioVision, an Abcam company and was previously called K110 Caspase-1 Fluorometric Assay Kit. K110-100 is the same size as the 100 test size of ab39412.</p> <p>Caspase-1 (ICE, IL-1beta Converting Enzyme) is the prototypical member of the ICE family of proteases/caspases.</p> <p><b>Other caspase and apoptosis assays</b></p> <p>Review the full set of <a href="#">caspase assays</a>, or the <a href="#">apoptosis assay and apoptosis marker guide</a>.</p>
平台	Microplate reader

### 性能

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

组件	100 tests
2X Reaction Buffer I	4 x 2ml
DTT I	1 x 0.4ml
Lysis Buffer IV	1 x 100ml
YVAD-AFC	1 x 0.5ml

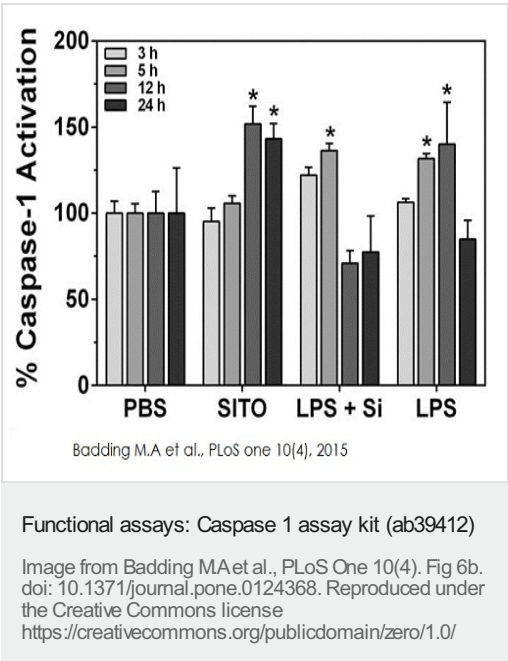
相关性

Caspases are a family of cysteine proteases that are key mediators of programmed cell death or apoptosis. The precursor form of all caspases is composed of a prodomain, and large and small catalytic subunits. The active forms of caspases are generated by several stimuli including ligand-receptor interactions, growth factor deprivation and inhibitors of cellular functions. All known caspases require cleavage adjacent to aspartates to liberate one large and one small subunit, which associate into a2b2 tetramer to form the active enzyme. Caspase 1 is similar to the cell death gene CED3 of C. elegans and regulates multiple proinflammatory cytokines, including Interleukin 1b and interferon-gamma-inducing factor. Caspase 1 plays a role in down stream of Caspase 8 which is involved in Fas-mediated apoptosis.

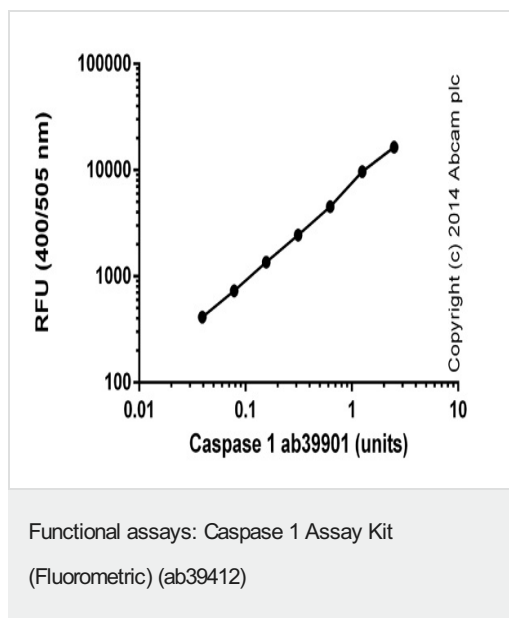
细胞定位

Cytoplasmic

图片



Badging M.A et al investigated the cytotoxicity of Indium-tin oxide (ITO). Previously,ITO had shown to be cytotoxic in cultured cells and pro-inflammatory in pulmonary animal models. ITO is used to make transparent conductive coatings for touch screens and liquid crystal display electronics. RAW cells were plated at  $5 \times 10^5$  cells/well and treated with SITO, LPS, or Min-U-sil (cells were first primed with LPS). Cells were washed, lysed, and 100  $\mu$ g of lysates were assayed using Caspase 1 assay kit (ab39412). PBS was used as a control. All conditions were run in duplicate wells and three independent experiments were performed for each time point.



Titration of the caspase 1 (**ab39901**) (background signal subtracted, duplicates; +/- SD).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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