



## **Caspase-4 Activity Assay Kit**

**Catalog number: AR4006**

This package insert must be read in its entirety before using this product.

For research use only. Not for use in diagnostic procedures.

Catalog Number: AR4006, Storage:

## Introduction

Caspase-4 is a member of the cysteine-aspartic acid protease family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes composed of a prodomain and a large and small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This caspase is able to cleave and activate its own precursor protein, as well as caspase 1 precursor. When overexpressed, this gene induces cell apoptosis. Alternative splicing results in transcript variants encoding distinct isoforms.

Our Caspase-4 Assay Kit, Colorimetric provides a simple and convenient method for assaying the activity of Caspase-4, which is based on the hydrolysis of the labeled substrate Ac-LEVD-pNA (acetyl-Leu-Glu-Val- Asp p-nitroanilide) by Caspase-4, releasing the pNA (p-nitroaniline) moiety from the substrate. The released pNA has the max absorbance at 405 nm ( $\epsilon = 10.5$ ) and its concentration is calculated by measuring the absorbance values at 405 nm or from a standard calibration curve prepared using the pNA Dye Standard, using a microplate reader or spectrophotometer.

The assay can be performed in 100  $\mu$ l volume in a 96 well plate using an ELISA plate reader or in 1 ml volume and measured in a spectrophotometer, using quartz cuvettes, since plastic cuvettes attenuate the absorption at 405 nm. Comparison of the absorbance of the released pNA from an apoptotic sample with an uninduced control allows determination of the fold increase in Caspase-4 activity.

## Overview

Product Name	Caspase-4 Activity Assay Kit
SKU/Catalog Number	AR4006
Description	Our Caspase-4 Assay Kit, Colorimetric provides a simple and convenient method for assaying the activity of Caspase-4, which is based on the hydrolysis of the labeled substrate Ac-LEVD-pNA (acetyl-Leu-Glu-Val- Asp p-nitroanilide) by Caspase-4, releasing the pNA (p-nitroaniline) moiety from the substrate. The released pNA has the max absorbance at 405 nm ( $\epsilon = 10.5$ ) and its concentration is calculated by measuring the absorbance values at 405 nm or from a standard calibration curve prepared using the pNA Dye Standard, using a microplate reader or spectrophotometer.
Cite This Product	Caspase-4 Activity Assay Kit (Boster Biological Technology, Pleasanton CA, USA, Catalog # AR4006)

## Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



## Caspase-4 Activity Assay Kit