



Caspase-2 Activity Assay Kit

Catalog number: AR4004

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: AR4004, Storage:

Introduction

Caspases are a family of proteases that initiate the process of apoptosis in mammalian cells. Caspase-2 belongs to the category cysteine proteases, which is encoded by CASP2 gene. Caspase-2, also known as Ich-1 and Nedd-2 exists as a proenzyme, which becomes activated during the cascade of events associated with apoptosis. Caspase-2 message can be found in variety of cells such as THP-1, U937, Jurkat and HeLa cells. The presence of Caspase-2 in different cell lines suggests that it is a key enzyme required for the execution of apoptosis (Talanian, R.V. et al).

Our Caspase-2 Assay Kit, Colorimetric provides a simple and convenient method for assaying the activity of caspases 2, which is based on the hydrolysis of the labeled substrate Ac-VDVAD-pNA (N-Acetyl-Val-Asp-Val-Ala-Asp-p-nitroanilide) by Caspase-2 protease, releasing the pNA (p-nitroaniline) moiety from the substrate. The released pNA has the max absorbance at 405 nm ($\epsilon_{405\text{nm}} = 10.5$) 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 μl 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-2 activity.

Overview

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SKU/Catalog Number	AR4004
Description	Our Caspase-2 Assay Kit, Colorimetric provides a simple and convenient method for assaying the activity of caspases 2, which is based on the hydrolysis of the labeled substrate Ac-VDVAD-pNA (N-Acetyl-Val-Asp-Val-Ala-Asp-p-nitroanilide) by Caspase-2 protease, releasing the pNA (p-nitroaniline) moiety from the substrate. The released pNA has the max absorbance at 405 nm ($\epsilon_{405\text{nm}} = 10.5$) 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-2 Activity Assay Kit (Boster Biological Technology, Pleasanton CA, USA, Catalog # AR4004)
Application	Enzyme Activity
*Our Boster Guarantee covers the use of this product in the above tested applications.	

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