

Caspase-3 Activity Assay kit

Apoptosis belongs to programmed cell death, which can be found in various organs and cells. It plays a very important role in regulating the homeostasis of cells and organs during normal development, physiology and pathology. Caspase (Cysteine-requiring Aspartate Protease) is a family of proteases involved in the process of apoptosis, containing more than 10 members. Caspase-3 is the most important terminal cleavage enzyme in the process of apoptosis, so it is also the most studied caspase. It activates pro-caspase-2, 6, 7, 9, etc., and specifically hydrolyzes a variety of key apoptosis proteins such as PARP, Mediates nuclear chromatin condensation, apoptotic body formation, and nuclear DNA fragmentation. The assay principle of the kit is based on the specific hydrolysis of polypeptide substrate acetyl-Asp-Glu-Val-Asp p-nitroanilide (Ac-DEVD-pNA) by Caspase-3 to release nitroaniline pNA. Free nitroaniline pNA is yellow and has a maximum absorption peak at 405 nm, which is determined by ordinary visible light spectrophotometry. According to the absorbance OD value of the pNA standard tube and the standard curve, the concentration of pNA released from the substrate peptide was calculated to obtain the hydrolysis activity of Caspase-3. The reaction system is 100 microliters, and the reagents provided by the kit can perform sample determination in addition to the standard curve.

Application: Determination of caspase-3 activity in mammalian tissues and cells.

Catalog No.	520012
Size	20 Assays
Product Category	Cell Detection
Kit Components	1. Lysis buffer 2. Reaction buffer 3. Ac-DEVD-pNA substrate [2mM] 4. pNA standard [10mM]
Storage/Stability	-20°C/6 months
Shipping	Gel Packs

