

Product datasheet

Recombinant mouse active Caspase-3 protein ab52071

概述

产品名称	Recombinant小鼠active Caspase-3 protein
蛋白长度	Full length protein

描述

性质	Recombinant
来源	Escherichia coli
氨基酸序列	
Accession	P42574
种属	Mouse

技术指标

Our [Abpromise guarantee](#) covers the use of **ab52071** in the following tested applications.

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

生物活性	SPECIFIC ACTIVITY: 300,000 units/mg. One unit of the recombinant caspase-3 is the enzyme activity that cleaves 1 nmol of the caspase substrate DEVD-pNA (pNA: pnitroanaline) per hour at 37°C.
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形式	Lyophilised
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补充说明	The lyophilized caspase-3 is stable for 1 year at -70degC. Following reconstitution in PBS, the enzyme should be aliquoted and immediately stored at -70degC. Avoid multiple freeze/thaw cycles as activity might decrease.
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Active caspase-3 is useful in studying enzyme regulation, determining target substrates, screening caspase inhibitors, or as a positive control in caspase activity assays. We recommend using 1 unit/assay for analyzing caspase activity.

制备和贮存

稳定性和存储	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Preservative: None
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Constituents: 5% Glycerol, 50mM Sodium chloride, 50mM HEPES, 0.1% Chaps, 10mM DTT, 10mM EDTA, pH 7.2

This product is an active protein and may elicit a biological response in vivo, handle with caution.

复溶

Reconstitute to 1 unit per μ l in PBS containing 15% glycerol.

常规信息

功能

Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9. Involved in the cleavage of huntingtin. Triggers cell adhesion in sympathetic neurons through RET cleavage.

组织特异性

Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

序列相似性

Belongs to the peptidase C14A family.

翻译后修饰

Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3 also occur and vice versa.

S-nitrosylated on its catalytic site cysteine in unstimulated human cell lines and denitrosylated upon activation of the Fas apoptotic pathway, associated with an increase in intracellular caspase activity. Fas therefore activates caspase-3 not only by inducing the cleavage of the caspase zymogen to its active subunits, but also by stimulating the denitrosylation of its active site thiol.

细胞定位

Cytoplasm.

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