abcam

Product datasheet

Recombinant human Cleaved Caspase-3 protein (Active) ab52101

4 References

製品の詳細

製品名 Recombinant human Cleaved Caspase-3 protein (Active)

生理活性 Specific activity: ≥ 15,000 units/mg

Unit definition: 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 37oC in a reaction solution containing 50 mM Hepes, pH 7.2, 50 mM NaCl, 0.1% Chaps, 10 mM EDTA, 5% Glycerol, and 10

mM DTT.

精製度 > 95 % SDS-PAGE.

発現系 Escherichia coli

アクセッション番号 <u>P42574</u>

タンパク質長 Full length protein

Animal free No

由来 Recombinant

生物種 Human

配列 MENTENSVDS KSIKNLEPKI IHGSESMDSG

ISLDNSYKMD YPEMGLCIII NNKNFHKSTG
MTSRSGTDVD AANLRETFRN LKYEVRNKND
LTREEIVELM RDVSKEDHSK RSSFVCVLLS
HGEEGIIFGT NGPVDLKKIT NFFRGDRCRS
LTGKPKLFII QACRGTELDC GIETDSGVDD
DMACHKIPVE ADFLYAYSTA PGYYSWRNSK

DGSWFIQSLC AMLKQYADKL EFMHILTRVN RKVATEFESF SFDATFHAKK QIPCIVSMLT KELYFYH

領域 1 to 277

配列の追加情報 (Gene ID 836)

特性

Our **Abpromise guarantee** covers the use of **ab52101** in the following tested applications.

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

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アプリケーション Functional Studies

製品の状態 Lyophilized

備考 This product is manufactured by BioVision, an Abcam company and was previously called 1083

Caspase-3, human recombinant. 1083-100 is the same size as the 100 unit size of ab52101.

The recombinant active human Caspase 3 spontaneously undergoes autoprocessing to yield

subunits characteristic of the native enzyme.

Cleaved Caspase 3 is useful in studying enzyme regulation, determining target substrates, screening caspase inhibitors, or as a positive control in caspase activity assays. The active Caspase 3 preferentially cleaves Caspase 3 substrates e.g. DEVD-AFC or DEVD-pNA.

MW: large (17 kD) and small (11 kD) subunits.

前処理および保存

保存方法および安定性 Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.

Constituents: PBS, 5% Glycerol (glycerin, glycerine), 1.71% HEPES, 1.71% Sodium chloride,

0.1% CHAPS, 0.16% EDTA, 0.12% DTT

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

再構成 Centrifuge the vial prior to opening. Reconstitute to 1 unit per µl in water.

関連情報

機能 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.

組織特異性 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.

配列類似性 Belongs to the peptidase C14A family.

翻訳後修飾 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.

細胞内局在 Cytoplasm.

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