

Product datasheet

Anti-Caspase-3 antibody ab90437

★★★★☆ 7 Abreviews 16 References 3 Images

Overview

Product name	Anti-Caspase-3 antibody
Description	Rabbit polyclonal to Caspase-3
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Rabbit, Chicken, Guinea pig, Hamster, Cow, Dog, Human, Pig, Saccharomyces cerevisiae, Monkey
Immunogen	<p>Recombinant full length protein corresponding to Human Caspase-3 aa 1-277. Sequence:</p> <p>MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDYPEMGLCIII NNKNFHKSTG MTSRSGTDVDAANLRETFRNLYEVRNKNDLTREEIVE LMRDVSKEDHSKRSSFVCVLLS HGEEGIIFGTNGPVDLKKITNFFRGD RCRSLTGKPKLFIQACRGTELDGCIETDSGVDD DMACHKIPVEADFL YAYSTAPGYYSWRNSKDGSWFIQSLCAMLKQYADKLEFMHILTRVN RK VATEFESFSFDATFHAKKQIPCIVSMLTKELYFYH</p> <p>Database link: P42574</p> <p style="text-align: right;"> Run BLAST with Run BLAST with </p>
Positive control	Jurkat cell lysate, Jurkat cells treated with staurosporine (lysate), HeLa cell lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 50% PBS, 50% Glycerol
Purity	Protein A purified
Purification notes	Affinity Purification
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab90437** in the following tested applications.

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

Application	Abreviews	Notes
WB	★★★★☆	1/1000. Predicted molecular weight: 32 kDa. A lower molecular weight band refers to a proteolytic cleavage product of caspase-3.
IHC-P		Use at an assay dependent concentration.

Target

Function

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.

Tissue specificity

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.

Sequence similarities

Belongs to the peptidase C14A family.

Post-translational modifications

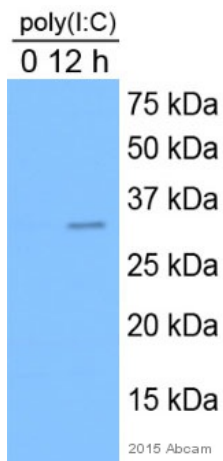
Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3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

Cellular localization

Cytoplasm.

Images



Western blot - Anti-Caspase-3 antibody (ab90437)

This image is courtesy of an anonymous abreview.

All lanes : Anti-Caspase-3 antibody (ab90437) at 1/1000 dilution

Lane 1 : Mouse hepatocytes whole cell lysate poly(I:C) treated - 0 hours

Lane 2 : Mouse hepatocytes whole cell lysate poly(I:C) treated - 12 hours

Developed using the ECL technique

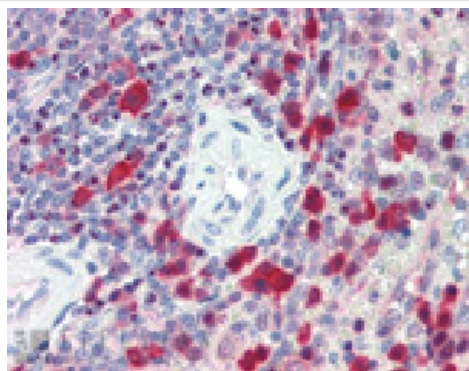
Predicted band size : 32 kDa

Observed band size : 32 kDa

Exposure time : 20 seconds

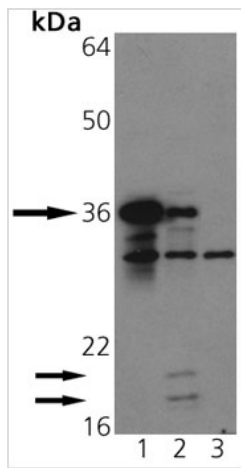
This image is courtesy of an anonymous abreview.

Blocking with 5% milk for 1 hour at 23°C.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caspase-3 antibody (ab90437)

Immunohistochemistry analysis of human spleen tissue stained with Caspase-3, pAb at 10µg/ml.



Western blot - Anti-Caspase-3 antibody (ab90437)

All lanes : Anti-Caspase-3 antibody (ab90437) at 1/1000 dilution

Lane 1 : Jurkat cell lysate

Lane 2 : Jurkat cells treated with staurosporine

Lane 3 : MCF-7 cell lysate (negative control)

Developed using the ECL technique

Predicted band size : 32 kDa

Additional bands at : ~18 kDa (possible cleavage fragment), ~20 kDa (possible cleavage fragment).

Western blot analysis of Caspase-3 pAb.

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