



## Product datasheet

# Anti-Caspase-3 antibody ab90437

★★★★☆ 7 Abreviews 28 References 3 Images

### Overview

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

### Properties

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

Isotype

IgG

## Applications

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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

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### 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

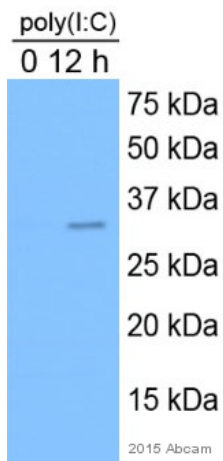
Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3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

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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

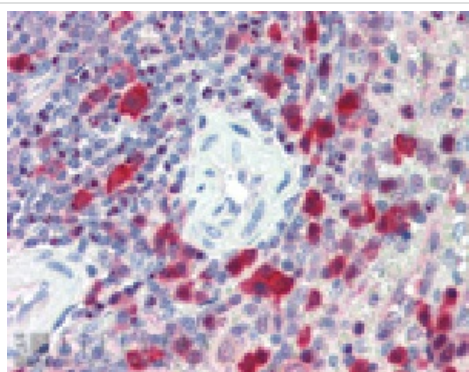
Developed using the ECL technique.

**Predicted band size:** 32 kDa

**Observed band size:** 32 kDa

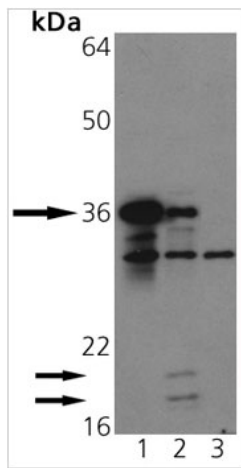
**Exposure time:** 20 seconds

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.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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