

## Product datasheet

# Anti-Caspase-3 antibody ab44976

★★★★☆ 3 Abreviews 37 References 2 Images

### Overview

<b>Product name</b>	Anti-Caspase-3 antibody
<b>Description</b>	Rabbit polyclonal to Caspase-3
<b>Host species</b>	Rabbit
<b>Specificity</b>	Ab44976 does not recognize the p12 or p17 activated forms of caspase-3.
<b>Tested applications</b>	<b>Suitable for:</b> IP, IHC-P, WB, ICC/IF, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Rabbit, Human, Monkey
<b>Immunogen</b>	Recombinant full length protein corresponding to Human Caspase-3. Database link: <a href="#">P42574</a>
<b>Positive control</b>	Jurkat cells. Tonsil.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.1% Sodium azide Constituents: 0.01% PBS, 0.2% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab44976** 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
IP		1/2000.

Application	Abreviews	Notes
IHC-P	★★★★☆	1/1000.
WB		1/500. Predicted molecular weight: 32 kDa.
ICC/IF		Use at an assay dependent concentration. PubMed: 20664058
IHC-Fr	★★★★☆	Use at an assay dependent concentration. See Abreviews

## 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

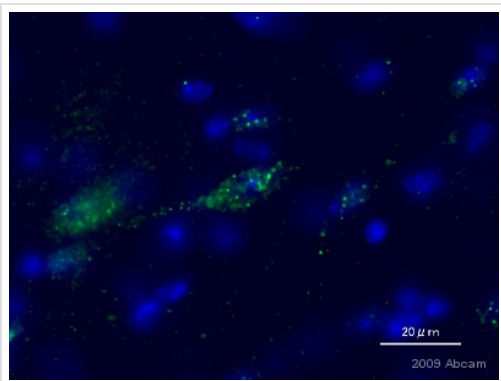
Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3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

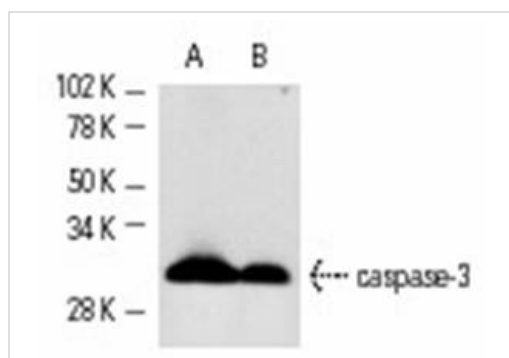
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caspase-3 antibody (ab44976)

This image is courtesy of an anonymous Abreview.

ab44976, at 1/100, staining Caspase-3 in mouse brain tissue sections by immunohistochemistry (formalin/PFA-fixed paraffin-embedded sections). Sections were paraformaldehyde fixed prior to blocking in 5% BSA for 1 hour at 25°C and then incubated with ab44976, for 12 hours at 4°C. A donkey polyclonal to rabbit Ig, diluted 1/500 was used as the secondary antibody. The green shows staining of caspase 3 and the blue DAPI.



Western blot - Anti-Caspase-3 antibody (ab44976)

Western blot analysis of caspase-3 precursor expression in HuT 78 (A) and CCRF-HSB-2 (B) whole cell lysates.

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