



Product datasheet

Anti-Caspase-3 antibody ab49822

★★★★★ [7 Abreviews](#) [388 References](#) [2 Images](#)

Overview

Product name	Anti-Caspase-3 antibody
Description	Rabbit polyclonal to Caspase-3
Host species	Rabbit
Specificity	<p>The immunogen for this product is aa167-175 within the p17 subunit (cleaved caspase) but because this is a poly the epitope will vary and not all batches will be flush against the cleavage site.</p> <p>This means it will detect a number of additional cleavage products in addition to p17:</p> <ul style="list-style-type: none"> • P12+17, • P12+P17+propeptide 1 • p12+p17+propeptide 1 + propeptide 2, • P17+propeptide 1, • p17+propeptide 1 + propeptide 2
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	<p>Synthetic peptide corresponding to Human Caspase-3 aa 150-250 conjugated to keyhole limpet haemocyanin.</p> <p>Database link: P42574</p> <p> Run BLAST with  Run BLAST with</p>
Positive control	ICC/IF: Human epitheloid carcinoma HeLa cell line, treated with staurosporine and WB: Human recombinant caspase-3, active.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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 or -

	80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: 0.0268% PBS
Purity	IgG fraction
Purification notes	Whole antiserum is fractionated and then further purified by ion exchange chromatography. The resulting IgG fraction is further purified by absorption on the Caspase-3 peptide (Human, amino acids 167-178) corresponding to the uncleaved Caspase 3 site sequence.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab49822 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	★★★★☆ (2)	1/500.
ICC/IF		1/1000.

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

MW [kDa]

45 —
30 —
20.1 —
17 —
14.3 —
6.5 —



Western blot - Anti-Caspase-3 antibody (ab49822)

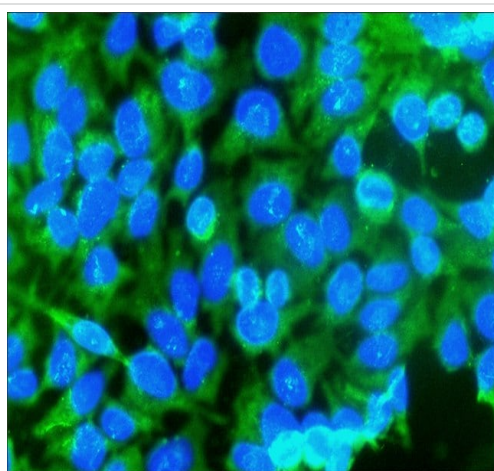
Anti-Caspase-3 antibody (ab49822) at 1/1000 dilution

Secondary

Goat Anti-Rabbit IgG, Peroxidase conjugate

Developed using the ECL technique.

Observed band size: 17 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Caspase-3 antibody (ab49822)

Immunocytochemistry/ Immunofluorescence analysis of HeLa cells labeling Cleaved Caspase-3 with ab49822 at 1/1000. HeLa cells were treated with 1 µg/mL staurosporine, fixed and permeabilized with Methanol followed by Acetone. Goat Anti-Rabbit IgG (whole molecule)-FITC was used as the secondary antibody. Cells were counterstained with DAPI (blue) to stain nuclei.

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