

Product datasheet

Anti-Caspase-3 antibody ab59388

[2 Images](#)

Overview

Product name	Anti-Caspase-3 antibody
Description	Rabbit polyclonal to Caspase-3
Tested applications	Suitable for: ELISA, IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat
Immunogen	Synthetic peptide corresponding to Human Caspase-3. Synthetic non-phosphopeptide derived from human Caspase-3 around the phosphorylation site of serine 150 (C-R-SP-L-T). Database link: P42574
Positive control	Human lymphnode.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab59388** 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
ELISA		1/5000.
IHC-P		Use at an assay dependent concentration.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Detects a band of approximately 38 kDa (predicted molecular weight: 32 kDa).

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

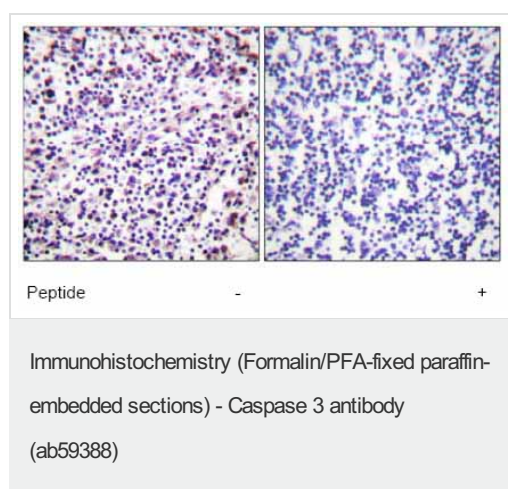
Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3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

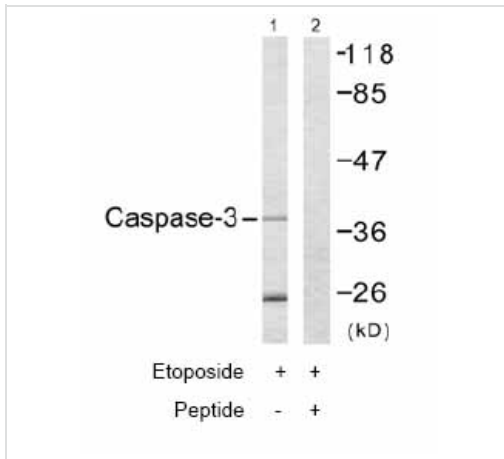
Images



Immunohistochemistry analysis of paraffin-embedded human lymph node tissue using ab59388 at a 1/50 dilution.

Left image: untreated.

Right image: treated with immunizing peptide.



Western blot - Caspase 3 antibody (ab59388)

All lanes : Anti-Caspase-3 antibody (ab59388) at 1/500 dilution

Lane 1 : Extracts from NIH/3T3 cells, treated with Etoposide (25µM, 24hours).

Lane 2 : Extracts from NIH/3T3 cells, treated with Etoposide (25µM, 24hours) with immunizing peptide

Predicted band size : 32 kDa

Observed band size : 26,38 kDa

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