



Product datasheet

Anti-Caspase-8 antibody [ABM14C1] ab220171

[2 References](#) [5 Images](#)

Overview

Product name	Anti-Caspase-8 antibody [ABM14C1]
Description	Mouse monoclonal [ABM14C1] to Caspase-8
Host species	Mouse
Tested applications	Suitable for: WB, Flow Cyt, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human Caspase-8 aa 150-400. Database link: Q14790
	 Run BLAST with  Run BLAST with
Positive control	WB: Molt-4, Kato III and HepG2 cell lysate. IHC-P: Human esophagus and tonsil tissue. Flow Cyt: HeLa and Jurkat cells.
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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 0.05% BSA, 99% PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	ABM14C1
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab220171 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		Use a concentration of 2 - 4 µg/ml. Predicted molecular weight: 55 kDa.
Flow Cyt		Use 0.5-1µg for 10 ⁶ cells.
IHC-P		Use a concentration of 5 - 10 µg/ml.

Target

Function

Most upstream protease of the activation cascade of caspases responsible for the TNFRSF6/FAS mediated and TNFRSF1A induced cell death. Binding to the adapter molecule FADD recruits it to either receptor. The resulting aggregate called death-inducing signaling complex (DISC) performs CASP8 proteolytic activation. The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases. Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC. Cleaves and activates CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10. May participate in the GZMB apoptotic pathways. Cleaves ADPRT. Hydrolyzes the small-molecule substrate, Ac-Asp-Glu-Val-Asp-AMC. Likely target for the cowpox virus CRMA death inhibitory protein. Isoform 5, isoform 6, isoform 7 and isoform 8 lack the catalytic site and may interfere with the pro-apoptotic activity of the complex.

Tissue specificity

Isoform 1, isoform 5 and isoform 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus and liver. Barely detectable in brain, testis and skeletal muscle.

Involvement in disease

Defects in CASP8 are the cause of caspase-8 deficiency (CASP8D) [MIM:607271]. CASP8D is a disorder resembling autoimmune lymphoproliferative syndrome (ALPS). It is characterized by lymphadenopathy, splenomegaly, and defective CD95-induced apoptosis of peripheral blood lymphocytes (PBLs). It leads to defects in activation of T-lymphocytes, B-lymphocytes, and natural killer cells leading to immunodeficiency characterized by recurrent sinopulmonary and herpes simplex virus infections and poor responses to immunization.

Sequence similarities

Belongs to the peptidase C14A family.
Contains 2 DED (death effector) domains.

Domain

Isoform 9 contains a N-terminal extension that is required for interaction with the BCAP31 complex.

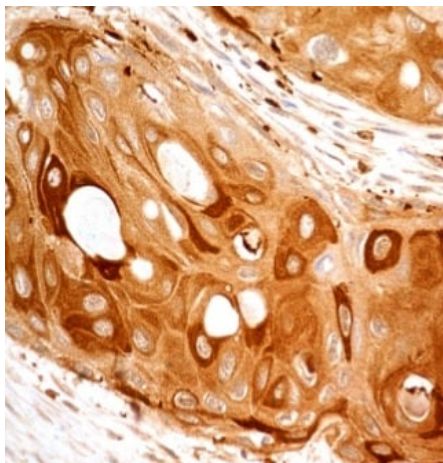
Post-translational modifications

Generation of the subunits requires association with the death-inducing signaling complex (DISC), whereas additional processing is likely due to the autocatalytic activity of the activated protease. GZMB and CASP10 can be involved in these processing events.
Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

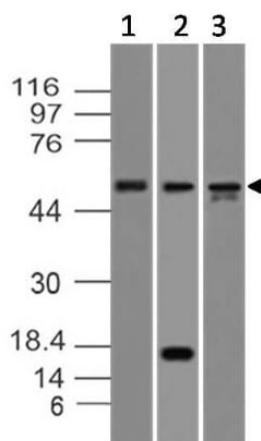
Cytoplasm.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caspase-8 antibody [ABM14C1] (ab220171)

Immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded human esophagus tissue sections labeling Caspase-8 with ab220171 at 5 µg/mL.



Western blot - Anti-Caspase-8 antibody [ABM14C1] (ab220171)

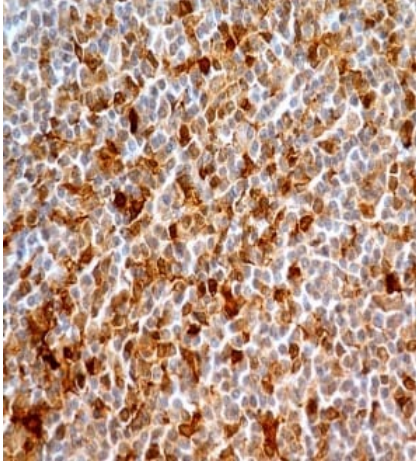
All lanes : Anti-Caspase-8 antibody [ABM14C1] (ab220171) at 2 µg/ml

Lane 1 : Molt-4 cell lysate

Lane 2 : Kato III cell lysate

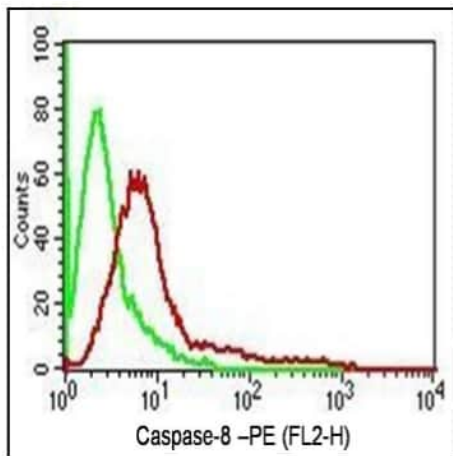
Lane 3 : HepG2 cell lysate

Predicted band size: 55 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caspase-8 antibody
[ABM14C1] (ab220171)

Immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded human tonsil tissue sections labeling Caspase-8 with ab220171 at 5 µg/mL.



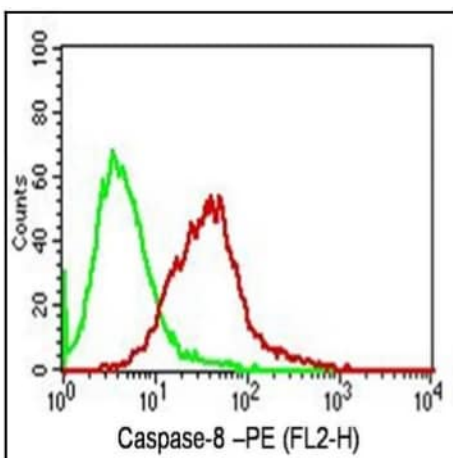
Flow Cytometry - Anti-Caspase-8 antibody
[ABM14C1] (ab220171)

Flow Cytometry analysis of HeLa cells labeling Caspase-8 with ab220171 at 0.5 µg/10⁶ cells.

ab220171: red

Isotype control: green

A goat anti-mouse PE conjugate was used as the secondary antibody.



Flow Cytometry - Anti-Caspase-8 antibody
[ABM14C1] (ab220171)

Flow Cytometry analysis of Jurkat cells labeling Caspase-8 with ab220171 at 0.5 µg/10⁶ cells.

ab220171: red

Isotype control: green

A goat anti-mouse PE conjugate was used as the secondary antibody.

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