abcam

ab220171

Anti-Caspase-8 antibody [ABM14C1]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CASP8 aa 150-400. The exact immunogen used to generate this antibody is proprietary information. Database link Q14790
Clone number	ABM14C1
Purification technique	Affinity purification Protein G
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.5-1 µg for 10^6 Cells
Notes	-

WB

Tested

Species	Human
Dilution info	2-4 µg/mL
Notes	-

IHC-P

Tested

Species	Human
Dilution info	5-10 µg/mL
Notes	-

Target data

See full target information CASP8

Function

Thiol protease that plays a key role in programmed cell death by acting as a molecular switch for apoptosis, necroptosis and pyroptosis, and is required to prevent tissue damage during embryonic development and adulthood (PubMed:23516580, PubMed:35338844, PubMed:35446120, PubMed:8681376, PubMed:8681377, PubMed:8962078, PubMed:9006941, PubMed:9184224). Initiator protease that induces extrinsic apoptosis by mediating cleavage and activation of effector caspases responsible for FAS/CD95-mediated and TNFRSF1A-induced cell death (PubMed:23516580, PubMed:35338844, PubMed:35446120, PubMed:8681376, PubMed:8681377, PubMed:8962078, PubMed:9006941, PubMed:9184224). Cleaves and activates effector caspases CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10 (PubMed:16916640, PubMed:8962078, PubMed:9006941). Binding to the adapter molecule FADD recruits it to either receptor FAS/TNFRSF6 or TNFRSF1A (PubMed:8681376, PubMed:8681377). The resulting aggregate called the death-inducing signaling complex (DISC) performs CASP8 proteolytic activation (PubMed:9184224). The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases (PubMed:9184224). Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC (PubMed:9184224). Also cleaves and activates BID, thereby promoting cytochrome C release from mitochrondria (By similarity). In addition to extrinsic apoptosis, also acts as a negative regulator of necroptosis: acts by cleaving RIPK1 at 'Asp-324', which is crucial to inhibit RIPK1 kinase activity, limiting TNF-induced apoptosis, necroptosis and inflammatory response (PubMed:31827280, PubMed:31827281). Also able to initiate pyroptosis by mediating cleavage and activation of gasdermin-C and -D (GSDMC and GSDMD, respectively): gasdermin cleavage promotes release of the N-terminal moiety that binds to membranes and forms pores, triggering pyroptosis (PubMed:32929201, PubMed:34012073). Initiates pyroptosis following inactivation of MAP3K7/TAK1 (By similarity). Also acts as a regulator of innate immunity by

mediating cleavage and inactivation of N4BP1 downstream of TLR3 or TLR4, thereby promoting cytokine production (By similarity). May participate in the Granzyme B (GZMB) cell death pathways (PubMed:8755496). Cleaves PARP1 and PARP2 (PubMed:8681376). Independent of its protease activity, promotes cell migration following phosphorylation at Tyr-380 (PubMed:18216014, PubMed:27109099). Isoform 5. Lacks the catalytic site and may interfere with the pro-apoptotic activity of the complex. Isoform 6. Lacks the catalytic site and may interfere with the pro-apoptotic activity of the complex. Isoform 7. Lacks the catalytic site and may interfere with the pro-apoptotic activity of the complex (Probable). Acts as an inhibitor of the caspase cascade (PubMed:12010809). Isoform 8. Lacks the catalytic site and may interfere with the pro-apoptotic activity of the complex.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

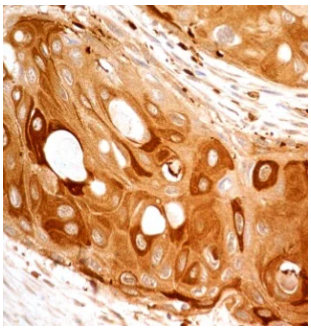
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

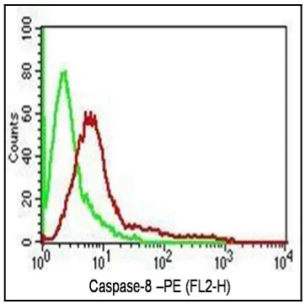
5 product images



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

Caspase-8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Caspase-8 antibody

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



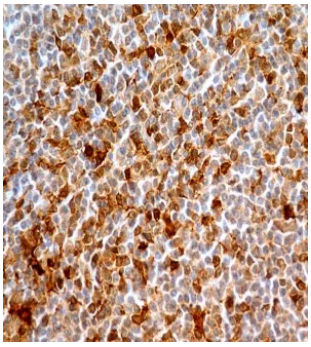
Flow Cytometry - Anti-Caspase-8 antibody [ABM14C1] (ab220171)

Caspase-8 Flow Cytometry staining using mouse Anti-Caspase-8 antibody

Flow Cytometry analysis of HeLa cells labeling Caspase-8 with ab220171 at 0.5 µg/10^6 cells. ab220171: red

Isotype control: green

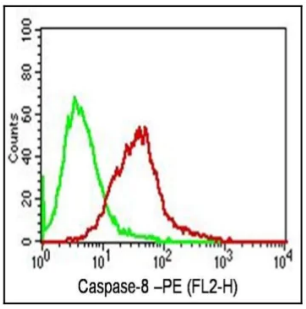
A goat anti-mouse PE conjugate was used as the secondary antibody.



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

Caspase-8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Caspase-8 antibody

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



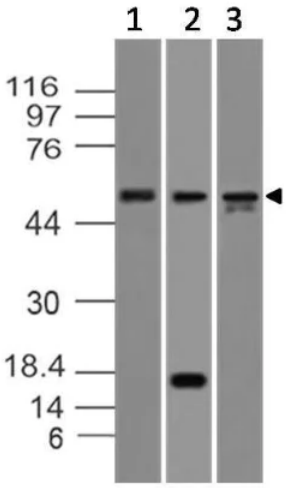
Flow Cytometry - Anti-Caspase-8 antibody [ABM14C1] (ab220171)

Caspase-8 Flow Cytometry staining using mouse Anti-Caspase-8 antibody

Flow Cytometry analysis of Jurkat cells lableing Caspase-8 with ab220171 at 0.5 µg/10^6 cells. ab220171: red

Isotype control: green

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



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

All lanes:
Western blot - 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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.