

# Caspase-8 Antibody

Rabbit mAb  
Catalog # AP90751

## Product Information

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<b>Application</b>	WB, IHC, IF, ICC, IHF
<b>Primary Accession</b>	<a href="#">Q14790</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	Caspase 8; CASP-8; Apoptotic cysteine protease; Apoptotic protease Mch-5; FADD-homologous ICE/ced-3-like protease; ICE-like apoptotic protease 5; MORT1-associated ced-3 homolog; MACH; Caspase-8 subunit p18; CAP4;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	55391

## Additional Information

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<b>Dilution</b>	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human Caspase-8
<b>Description</b>	Caspases are a family of cytosolic aspartate specific cysteine proteases. Involved in the activation cascade of caspases responsible for apoptosis execution. Activated caspase-8 cleaves and activates downstream effector caspases such as caspase-1, -3, -6, and -7.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

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<b>Name</b>	CASP8 {ECO:0000303   PubMed:9931493, ECO:0000312   HGNC:HGNC:1509}
<b>Function</b>	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: <a href="#">23516580</a> , PubMed: <a href="#">35338844</a> , PubMed: <a href="#">35446120</a> , PubMed: <a href="#">8681376</a> , PubMed: <a href="#">8681377</a> , PubMed: <a href="#">8962078</a> , PubMed: <a href="#">9006941</a> , PubMed: <a href="#">9184224</a> ). 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: <a href="#">23516580</a> , PubMed: <a href="#">35338844</a> , PubMed: <a href="#">35446120</a> , PubMed: <a href="#">8681376</a> , PubMed: <a href="#">8681377</a> , PubMed: <a href="#">8962078</a> , PubMed: <a href="#">9006941</a> , PubMed: <a href="#">9184224</a> ). Cleaves and activates effector caspases CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10 (PubMed: <a href="#">16916640</a> , PubMed: <a href="#">8962078</a> , PubMed: <a href="#">9006941</a> ). 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 mitochondria (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](#)).

#### Cellular Location

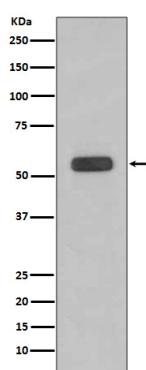
Cytoplasm {ECO:0000250 | UniProtKB:Q9JHX4}. Nucleus {ECO:0000250 | UniProtKB:Q9JHX4}. Cell projection, lamellipodium. Note=Recruitment to lamellipodia of migrating cells is enhanced by phosphorylation at Tyr-380

#### Tissue Location

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

## Images

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Western blot analysis of Caspase-8 expression in HeLa cell lysate.

Image not found : 202311/AP90751-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human uterus, using Caspase-8 Antibody.

Image not found : 202311/AP90751-IF.jpg

Immunofluorescent analysis of Hela cells, using Caspase-8 Antibody.

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