

**Caspase-8 Antibody**  
Rabbit mAb  
Catalog # AP90587

## Specification

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### Caspase-8 Antibody - Product Information

|  |                        |
|--|------------------------|
| Application  | WB                     |
| Primary Accession  | <a href="#">Q14790</a> |
| Clonality  | Monoclonal             |
| <b>Other Names</b>   |                        |
| CASP8; ALPS2B; Apoptotic protease Mch-5; Apoptotic cysteine protease; Casp-8; Caspase-8; CAP4; Caspase 8; MACH; MCH5; Pro Caspase 8; FADD-like ICE; FLICE; |                        |
| Isotype  | Rabbit IgG             |
| Host   | Rabbit                 |
| Calculated MW  | 55391 Da               |

### Caspase-8 Antibody - Additional Information

|                              |  |
|------------------------------|--|
| Purification                 | Affinity-chromatography  |
| Immunogen                    | A synthesized peptide derived from human Caspase-8   |
| Description                  | Apoptosis induced through the CD95 receptor (Fas/APO-1) and tumor necrosis factor receptor 1 (TNFR1) activates caspase-8 and leads to the release of the caspase-8 active fragments, p18 and p10 (1-3). Activated caspase-8 cleaves and activates downstream effector caspases such as caspase-1, -3, -6, and -7. Caspase-3 ultimately elicits the morphological hallmarks of apoptosis, including DNA fragmentation and cell shrinkage. |
| Storage Condition and Buffer | 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.  |

### Caspase-8 Antibody - Protein Information

**Name** CASP8 {ECO:0000303|PubMed:9931493, ECO:0000312|HGNC:HGNC:1509}

#### 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:<a href="http://www.uniprot.org/citations/23516580" target="\_blank">23516580</a>, PubMed:<a href="http://www.uniprot.org/citations/35338844"

target="\_blank">35338844</a>, PubMed:<a href="http://www.uniprot.org/citations/35446120" target="\_blank">35446120</a>, PubMed:<a href="http://www.uniprot.org/citations/8681376" target="\_blank">8681376</a>, PubMed:<a href="http://www.uniprot.org/citations/8681377" target="\_blank">8681377</a>, PubMed:<a href="http://www.uniprot.org/citations/8962078" target="\_blank">8962078</a>, PubMed:<a href="http://www.uniprot.org/citations/9006941" target="\_blank">9006941</a>, PubMed:<a href="http://www.uniprot.org/citations/9184224" target="\_blank">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="http://www.uniprot.org/citations/23516580" target="\_blank">23516580</a>, PubMed:<a href="http://www.uniprot.org/citations/35338844" target="\_blank">35338844</a>, PubMed:<a href="http://www.uniprot.org/citations/35446120" target="\_blank">35446120</a>, PubMed:<a href="http://www.uniprot.org/citations/8681376" target="\_blank">8681376</a>, PubMed:<a href="http://www.uniprot.org/citations/8681377" target="\_blank">8681377</a>, PubMed:<a href="http://www.uniprot.org/citations/8962078" target="\_blank">8962078</a>, PubMed:<a href="http://www.uniprot.org/citations/9006941" target="\_blank">9006941</a>, PubMed:<a href="http://www.uniprot.org/citations/9184224" target="\_blank">9184224</a>). Cleaves and activates effector caspases CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10 (PubMed:<a href="http://www.uniprot.org/citations/16916640" target="\_blank">16916640</a>, PubMed:<a href="http://www.uniprot.org/citations/8962078" target="\_blank">8962078</a>, PubMed:<a href="http://www.uniprot.org/citations/9006941" target="\_blank">9006941</a>). Binding to the adapter molecule FADD recruits it to either receptor FAS/TNFRSF6 or TNFRSF1A (PubMed:<a href="http://www.uniprot.org/citations/8681376" target="\_blank">8681376</a>, PubMed:<a href="http://www.uniprot.org/citations/8681377" target="\_blank">8681377</a>). The resulting aggregate called the death-inducing signaling complex (DISC) performs CASP8 proteolytic activation (PubMed:<a href="http://www.uniprot.org/citations/9184224" target="\_blank">9184224</a>). The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases (PubMed:<a href="http://www.uniprot.org/citations/9184224" target="\_blank">9184224</a>). Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC (PubMed:<a href="http://www.uniprot.org/citations/9184224" target="\_blank">9184224</a>). 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:<a href="http://www.uniprot.org/citations/31827280" target="\_blank">31827280</a>, PubMed:<a href="http://www.uniprot.org/citations/31827281" target="\_blank">31827281</a>). 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:<a href="http://www.uniprot.org/citations/32929201" target="\_blank">32929201</a>, PubMed:<a href="http://www.uniprot.org/citations/34012073" target="\_blank">34012073</a>). 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:<a href="http://www.uniprot.org/citations/8755496" target="\_blank">8755496</a>). Cleaves PARP1 and PARP2 (PubMed:<a href="http://www.uniprot.org/citations/8681376" target="\_blank">8681376</a>). Independent of its protease activity, promotes cell migration following phosphorylation at Tyr-380 (PubMed:<a href="http://www.uniprot.org/citations/18216014" target="\_blank">18216014</a>, PubMed:<a href="http://www.uniprot.org/citations/27109099" target="\_blank">27109099</a>).

### 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

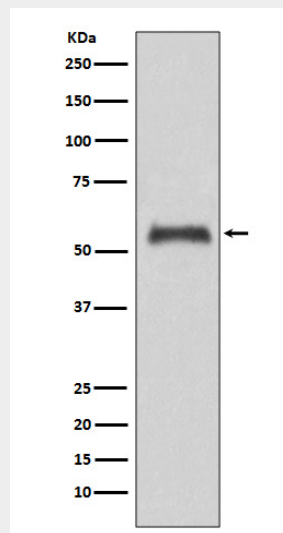
Isoform 1, isoform 5 and isoform 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus and liver. Barely detectable in brain, testis and skeletal muscle

### Caspase-8 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Caspase-8 Antibody - Images



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