

**Anti-Caspase-8(P10) Antibody**  
Catalog # ABO10842**Specification****Anti-Caspase-8(P10) Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q14790</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Caspase-8(CASP8) detection. Tested with WB, IHC-P in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Caspase-8(P10) Antibody - Additional Information**

**Gene ID** 841

**Other Names**

Caspase-8, CASP-8, 3.4.22.61, Apoptotic cysteine protease, Apoptotic protease Mch-5, CAP4, FADD-homologous ICE/ced-3-like protease, FADD-like ICE, FLICE, ICE-like apoptotic protease 5, MORT1-associated ced-3 homolog, MACH, Caspase-8 subunit p18, Caspase-8 subunit p10, CASP8, MCH5

**Calculated MW**

55391 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat  
<br>Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Cytoplasm.

**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.

**Protein Name**

Caspase-8(CASP-8)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Caspase-8(P10)(458-473aa TILTEVNYEVS NKDDK).

#### Purification

Immunogen affinity purified.

#### Cross Reactivity

No cross reactivity with other proteins

#### Storage

**At -20°C for one year. After r° Constitution, at 4°C for one month. It° Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

#### Sequence Similarities

Belongs to the peptidase C14A family.

### Anti-Caspase-8(P10) 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

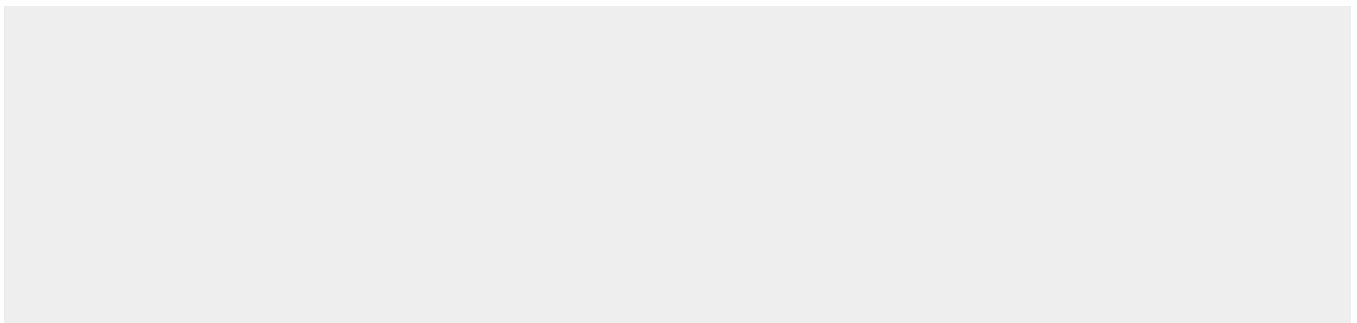
Isoform 1, isoform 5 and isoform 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus and liver. Barely detectable in brain, testis and skeletal muscle

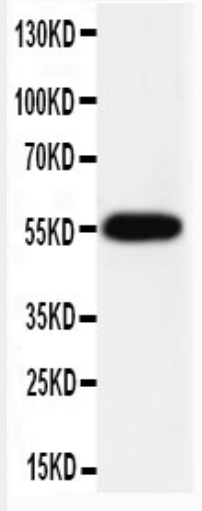
### Anti-Caspase-8(P10) Antibody - Protocols

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

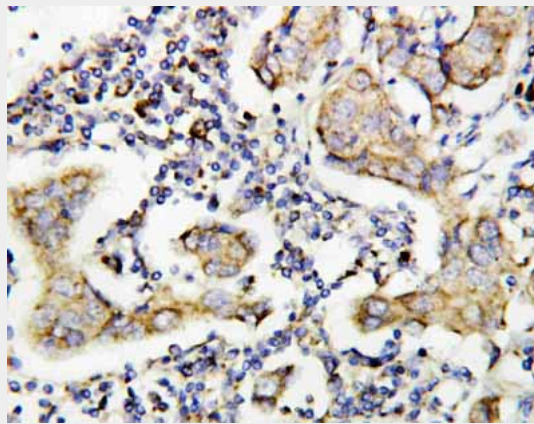
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-Caspase-8(P10) Antibody - Images





Anti-Caspase-8(P10) antibody, ABO10842, Western blottingWB: HELA Cell Lysate



Anti-Caspase-8(P10) antibody, ABO10842, IHC(P)IHC(P): Human Mammary Cancer Tissue

### **Anti-Caspase-8(P10) Antibody - Background**

Caspase 8 is a caspase protein. It most likely acts upon caspase 3. This gene encodes a member of the cysteine-aspartic acid protease(caspase) family. The human CASP8 gene, whose product is also known as caspase 8 and FLICE, encodes an interleukin-1beta converting enzyme(ICE)-related cysteine protease that is activated by the engagement of several different death receptors. Caspase 8 is immediately recruited to the Fas receptor once it oligomerizes, and its protease activity is crucial for the apoptotic response generated by the resulting death-inducing signaling complex(DISC). This gene contains at least 11 exons spanning approximately 30kb on human chromosome band 2q33-34. This region of human chromosome 2 was previously reported as the location of the CASP10 gene, whose product is closely related to caspase 8. Caspase-8 deficiency in humans is compatible with normal development and shows that caspase-8 has a postnatal role in immune activation of naive lymphocytes.