

# Anti-Caspase-8 (p18) Antibody

Catalog # ABO11043

## Product Information

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|--------------------------|------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC-P                                                                                      |
| <b>Primary Accession</b> | <a href="#">Q14790</a>                                                                         |
| <b>Host</b>              | Rabbit                                                                                         |
| <b>Reactivity</b>        | Human                                                                                          |
| <b>Clonality</b>         | Polyclonal                                                                                     |
| <b>Format</b>            | Lyophilized                                                                                    |
| <b>Description</b>       | 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.

## Additional Information

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| <b>Gene ID</b>                  | 841                                                                                                                                                                                                                                                                                      |
| <b>Other Names</b>              | 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 |
| <b>Calculated MW</b>            | 55391                                                                                                                                                                                                                                                                                    |
| <b>Application Details</b>      | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Human                                                                                                                                                                   |
| <b>Subcellular Localization</b> | Cytoplasm.                                                                                                                                                                                                                                                                               |
| <b>Tissue Specificity</b>       | 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.                                                                      |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                |
| <b>Protein Name</b>             | Caspase-8(CASP-8)                                                                                                                                                                                                                                                                        |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg Na <sub>3</sub> .                                                                                                                                                             |
| <b>Immunogen</b>                | A synthetic peptide corresponding to a sequence at the N-terminus of human Caspase-8 (p18) (257-277aa NNHNFAKAREKVPKLHSIRDR).                                                                                                                                                            |

|                              |                                                                                                                                                                                       |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purification</b>          | Immunogen affinity purified.                                                                                                                                                          |
| <b>Cross Reactivity</b>      | No cross reactivity with other proteins                                                                                                                                               |
| <b>Storage</b>               | 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. |
| <b>Sequence Similarities</b> | Belongs to the peptidase C14A family.                                                                                                                                                 |

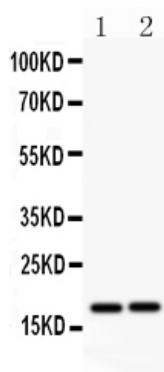
## Protein Information

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|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name</b>              | CASP8 {ECO:0000303   PubMed:9931493, ECO:0000312   HGNC:HGNC:1509}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>          | <p>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:<a href="#">8681376</a>, PubMed:<a href="#">8681377</a>). The resulting aggregate called the death-inducing signaling complex (DISC) performs CASP8 proteolytic activation (PubMed:<a href="#">9184224</a>). The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases (PubMed:<a href="#">9184224</a>). Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC (PubMed:<a href="#">9184224</a>). 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:<a href="#">31827280</a>, PubMed:<a href="#">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="#">32929201</a>, PubMed:<a href="#">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="#">8755496</a>). Cleaves PARP1 and PARP2 (PubMed:<a href="#">8681376</a>). Independent of its protease activity, promotes cell migration following phosphorylation at Tyr-380 (PubMed:<a href="#">18216014</a>, PubMed:<a href="#">27109099</a>).</p> |
| <b>Cellular Location</b> | <p>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</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Tissue Location</b>   | <p>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</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

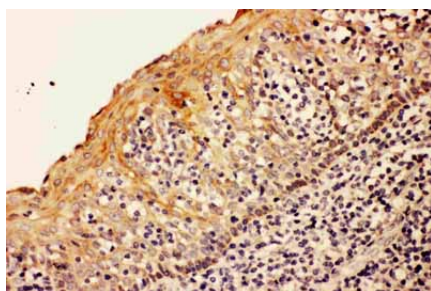
## Background

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.

## Images



Anti- Caspase-8(p18) antibody, ABO11043, Western blotting  
All lanes: Anti Caspase-8(p18) (ABO11043) at 0.5ug/ml  
Lane 1: A549 Whole Cell Lysate at 40ug  
Lane 2: HELA Whole Cell Lysate at 40ug  
Predicted bind size: 18KD  
Observed bind size: 18KD



Anti- Caspase-8(p18) antibody, ABO11043, IHC(P)  
IHC(P): Human Tonsil Tissue

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