

Caspase-8 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10013**Specification**

Caspase-8 Antibody - Product Information

Application	WB
Primary Accession	O89110
Other Accession	BC006737
Reactivity	Mouse, Rat, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	55357

Caspase-8 Antibody - Additional Information**Gene ID** 12370

Application & Usage	Western blotting (0.5-4 µg/ml). The immunoaffinity purified antibody detects the full length (55 kDa), intermediate cleavage fragments (26-31 kDa) and cleaved large fragment (18 kDa) of caspase-8.
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Other Names

CASP8 , MGC78473 , CASP-8, MACH, procaspase-8, MCH5, ALPS2B, FLICE, CAP4, EC 3.4.22.61

Target/Specificity

Caspase-8

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.2 mg/ml) protein A purified rabbit anti-caspase-8 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Caspase-8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Caspase-8 Antibody - Protein Information

Name 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:12065591, PubMed:18455983, PubMed:30361383, PubMed:30381458, PubMed:31511692, PubMed:31748744, PubMed:33397971). 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:9654089, PubMed:9837723, PubMed:24813849, PubMed:24813850). Cleaves and activates effector caspases CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10 (By similarity). Binding to the adapter molecule FADD recruits it to either receptor FAS/CD95 or TNFRSF1A (PubMed:29440439). The resulting aggregate called the death-inducing signaling complex (DISC) performs CASP8 proteolytic activation (By similarity). The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases (By similarity). Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC (By similarity). In addition to extrinsic apoptosis, also acts as a negative regulator of necroptosis: acts by cleaving RIPK1 at 'Asp-325', which is crucial to inhibit RIPK1 kinase activity, limiting TNF-induced apoptosis, necroptosis and inflammatory response (PubMed:31511692). 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:30361383, PubMed:30381458). Initiates pyroptosis following inactivation of MAP3K7/TAK1 (PubMed:30361383, PubMed:30381458). Also acts as a regulator of innate immunity by mediating cleavage and inactivation of N4BP1 downstream of TLR3 or TLR4, thereby promoting cytokine production (PubMed:32971525). May participate in the Granzyme B (GZMB) cell death pathways (By similarity). Cleaves PARP1 and PARP2 (PubMed:12065591).

Cellular Location

Cytoplasm. Nucleus. Note=Translocates into the nucleus during apoptosis.

Tissue Location

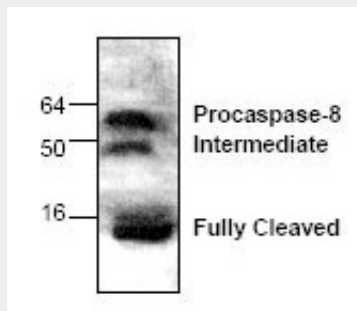
Expressed in a wide variety of tissues. Highest expression in spleen, thymus, lung, liver and kidney. Lower expression in heart, brain, testis and skeletal muscle

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 in Jurkat cells treated by camptothecin.

Caspase-8 Antibody - Background

Caspase family of cysteine proteases has been shown to play a key role in apoptosis. Caspase-8 is a 55 kDa cytosolic protein that is synthesized as an inactive pro-enzyme. Activation of caspase-8 involves a two-step proteolysis: the cleavage of caspase-8 to generate a 43 and a 12 kDa fragment which is further processed to 10 kDa. The p43 is then cleaved to yield p26 and the release of the active site containing p18.