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Rabbit Anti-Caspase 8 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52053

Specification

Rabbit Anti-Caspase 8 Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	O89110
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**55357**

Rabbit Anti-Caspase 8 Polyclonal Antibody - Additional Information

Gene ID 12370

Other Names
MACH; Mch5; FLICE; CASP-8; Caspase-8; Casp8

Dilution
WB~~1:100~1:500

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

Rabbit Anti-Caspase 8 Polyclonal 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 the TNFRSF6/FAS mediated and TNFRSF1A induced cell death (PubMed:9654089, PubMed:<a href="http://www.uniprot.org/citations/9837723"

target="_blank">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 TNFRSF6/FAS mediated or TNFRSF1A (PubMed:29440439). The resulting aggregate called 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

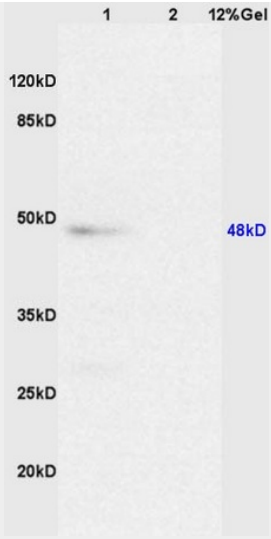
Rabbit Anti-Caspase 8 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Rabbit Anti-Caspase 8 Polyclonal Antibody - Images

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L1 mouse liver lysates L2 mouse spleen lysates probed with Anti Caspase 8 Polyclonal Antibody, Unconjugated (AP52053) at 1:200 overnight at 4˚C. Followed by conjugation to secondary antibody at 1:3000 for 90 min at 37˚C. Predicted band 12kD. Observed band size:48kD.

Rabbit Anti-Caspase 8 Polyclonal Antibody - Background

Most upstream protease of the activation cascade of caspases responsible for the TNFRSF6/FAS mediated and TNFRSF1A induced cell death. Binding to the adapter molecule FADD recruits it to either receptor. The resulting aggregate called death-inducing signaling complex (DISC) performs CASP8 proteolytic activation. The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases. Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC. Cleaves and activates CASP3, CASP4, CASP6, CASP7, CASP9 and CASP1. May participate in the GZMB apoptotic pathways. Cleaves ADPRT. Hydrolyzes the small-molecule substrate, Ac-Asp-Glu-Val-Asp-|-AMC. Likely target for the cowpox virus CRMA death inhibitory protein.