

**Caspase-1 (PTR1290) mouse mAb**

<b>Catalog No :</b>	YM4685
<b>Reactivity :</b>	Human;Mouse;Rat;Horse;Pig;
<b>Applications :</b>	WB;IF;ELISA
<b>Target :</b>	Caspase-1
<b>Gene Name :</b>	CASP1 IL1BC IL1BCE
<b>Protein Name :</b>	Caspase-1 (CASP-1) (EC 3.4.22.36) (Interleukin-1 beta convertase) (IL-1BC) (Interleukin-1 beta-converting enzyme) (ICE) (IL-1 beta-converting enzyme) (p45) [Cleaved into: Caspase-1 subunit p20; Caspas
<b>Human Gene Id :</b>	834
<b>Human Swiss Prot No :</b>	P29466
<b>Mouse Gene Id :</b>	12362
<b>Mouse Swiss Prot No :</b>	P29452
<b>Immunogen :</b>	Synthesized peptide derived from human Caspase-1 AA range: 350-404
<b>Specificity :</b>	This antibody detects endogenous levels of Caspase-1 protein.
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Mouse, Monoclonal/IgG2a, kappa
<b>Dilution :</b>	WB 1:500-2000. IF 1:100-500. ELISA 1:1000-5000
<b>Purification :</b>	Protein G
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)

**Molecularweight :** 45kD

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**Observed Band :** 45kD

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**Background :** caspase 1 (CASP1) Homo sapiens This gene encodes a protein which is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012],

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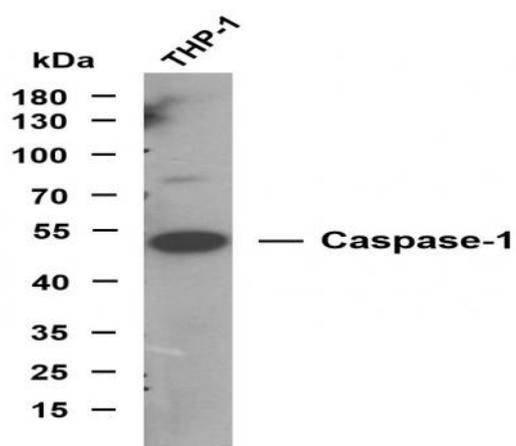
**Function :** Thiol protease involved in a variety of inflammatory processes by proteolytically cleaving other proteins, such as the precursors of the inflammatory cytokines interleukin-1 beta (IL1B) and interleukin 18 (IL18) as well as the pyroptosis inducer Gasdermin-D (GSDMD), into active mature peptides . Plays a key role in cell immunity as an inflammatory response initiator: once activated through formation of an inflammasome complex, it initiates a pro-inflammatory response through the cleavage of the two inflammatory cytokines IL1B and IL18, releasing the mature cytokines which are involved in a variety of inflammatory processes . Cleaves a tetrapeptide after an Asp residue at position P1 . Also initiates pyroptosis, a programmed lytic cell death pathway, through cleavage of GSDMD . In contrast to cleavage of interleukins IL1B and IL1B, recognition and cleavage of GSDMD is not strictly depend

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**Expression :** Expressed in larger amounts in spleen and lung. Detected in liver, heart, small intestine, colon, thymus, prostate, skeletal muscle, peripheral blood leukocytes, kidney and testis. No expression in the brain.

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## Products Images



Whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-Caspase-1 (PTR1290) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: THP-1