

## CASP1

**Reactivity:** Human Mouse

**Tested applications:** WB IHC

**Recommended Dilution:** WB 1:500 - 1:2000 IHC 1:50 - 1:200

**Calculated MW:** 45kDa

**Observed MW:** Refer to Figures

**Immunogen:**

Recombinant protein of human CASP1

**Storage Buffer:**

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Concentration:**

bi

**Synonym:**

CASP1;ICE;IL1BC;P45 ; Caspase-1

**Catalog #:** A0964

**Antibody Type:**

Polyclonal Antibody

**Species:** Rabbit

**Gene ID:** 834

**Isotype:** IgG

**Swiss Prot:** P29466

**Purity:** Affinity purification

For research use only.

**Background:**

Caspase-1, or interleukin-1 $\beta$  converting enzyme (ICE/ICE), is a class I cysteine protease, which also includes caspases -4, -5, -11, and -12. Caspase-1 cleaves inflammatory cytokines such as pro-IL-1 $\beta$  and interferon- inducing factor (IL-18) into their mature forms (1,2). Like other caspases, caspase-1 is proteolytically activated from a proenzyme to produce a tetramer of its two active subunits, p20 and p10. Caspase-1 has a large amino-terminal pro-domain that contains a caspase recruitment domain (CARD). Overexpression of caspase-1 can induce apoptosis (3). Mice deficient in caspase-1, however, have no overt defects in apoptosis but do have defects in the maturation of pro-IL-1 and are resistant to endotoxic shock (4,5). At least six caspase-1 isoforms have been identified, including caspase-1 , , , and (6). Most caspase-1 isoforms ( , , and ) produce products between 30-48 kDa and induce apoptosis upon over-expression. Caspase-1 typically contains only the p10 subunit, does not induce apoptosis and may act as a dominant negative. The widely expressed isoform of caspase-1 induces apoptosis and lacks 39 amino-terminal residues found in the isoform (6). Activation of caspase-1 occurs through an oligomerization molecular platform designated the "inflammasome" that includes caspase-5, Pycard/Asc, and NALP1 (7).

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