ABCLONAL BIOTECHNOLOGY,INC.

Caspase-1 Rabbit pab Antibody

Anti Caspase-1 antibody

Catalog Number:	A0069	**Quantity:**	100ul
Lot Number:	A00009	**Species:**	Rabbit
Gene ID:	834	**Swiss Prot:**	P29466

DESCRIPTION

Description Rabbit polyclonal to Caspase-1

Species Rabbit

Applications WB IHC ICC

Reactivity Hu Mouse Rat

Immunogen A synthetic peptide of human Caspase-1

Other Name CASP1;ICE;IL1BC;P45

PROPERTIES

Form Liquid

Storage instructions Upon delivery aliquot and store at -20ºC or -80ºC.

Storage buffer PBS with 0.1% Sodium Azide, 50% Glycerol,

Purity Affinity purification

Clonality Polyclonal

Isotype IgG

APPLICATION

WB WB :1/2000-5000

IHC IHC: 1/250-500

ICC ICC: 1/100

BACKGROUND

Caspase-1, or interleukin-1ß converting enzyme (ICE/ICEα), is a class I cysteine protease, which also includes caspases -4, -5, -11, and -12. Caspase-1 cleaves inflammatory cytokines such as pro-IL-1ß and interferon-γ 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-1β and are resistant to endotoxic shock (4,5). At least six caspase-1 isoforms have been identified, including caspase-1 α, β, γ, δ, ε and ζ (6). Most caspase-1 isoforms (α, β, γ and δ) produce products between 30-48 kDa and induce apoptosis upon over-expression. Caspase-1 ε typically contains only the p10 subunit, does not induce apoptosis and may act as a dominant negative. The widely expressed ζ isoform of caspase-1 induces apoptosis and lacks 39 amino-terminal residues found in the α 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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2. Martinon, F. and Tschopp, J. (2004) *Cell* 117, 561-74.
3. Miura, M. et al. (1993) *Cell* 75, 653-60.
4. Kuida, K. et al. (1995) *Science* 267, 2000-3.
5. Li, P. et al. (1995) *Cell* 80, 401-11.
6. Feng, Q. et al. (2004) *Genomics* 84, 587-91.
7. Martinon, F. et al. (2002) *Mol Cell* 10, 417-26.