

Product datasheet for **TA326866**

Caspase 1 (CASP1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human CASP1
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	45 kDa
Gene Name:	caspase 1
Database Link:	NP_001214 Entrez Gene 12362 MouseEntrez Gene 25166 RatEntrez Gene 834 Human P29466



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Background:

Caspase-1, or interleukin-1 β converting enzyme (ICE/ICEa), 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 β and interferon- γ inducing factor (IL-18) into their mature forms. 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. Mice deficient in caspase-1, however, have no overt defects in apoptosis but do have defects in the maturation of pro-IL-1 β and are resistant to endotoxic shock. At least six caspase-1 isoforms have been identified, including caspase-1 a, β , γ , d, e and δ . Most caspase-1 isoforms (a, β , γ and d) produce products between 30-48 kDa and induce apoptosis upon over-expression. Caspase-1 e typically contains only the p10 subunit, does not induce apoptosis and may act as a dominant negative. The widely expressed δ isoform of caspase-1 induces apoptosis and lacks 39 amino-terminal residues found in the a isoform (6). Activation of caspase-1 occurs through an oligomerization molecular platform designated the "inflammasome" that includes caspase-5, Pycard/Asc, and NALP1.

Synonyms:

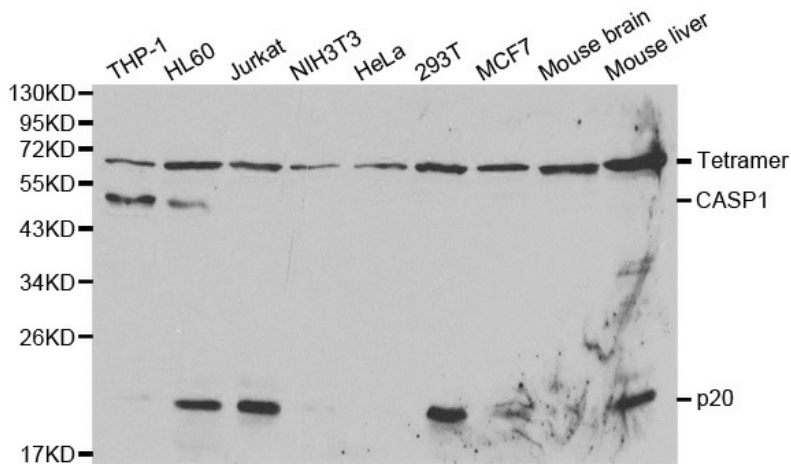
ICE; IL1BC; P45

Protein Families:

Druggable Genome, Protease

Protein Pathways:

Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway

Product images:


Western blot analysis of extracts of various cell lines, using CASP1 antibody.