



Cleaved (Asp296) Caspase-1 Rabbit mAb

Catalog No	YP-rAb-16923
Isotype	IgG
Reactivity	Mouse
Applications	WB,IHC,IF,ELISA
Gene Name	CASP1 IL1BC IL1BCE
Protein Name	Caspase-1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:100-1:200; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	CASP1 ; IL1BC ; IL1BCE ; Caspase-1 ; CASP-1 ; Interleukin-1 beta convertase ; IL-1BC ; Interleukin-1 beta-converting enzyme ; ICE ; IL-1 beta-converting enzyme ; p45 ; [Cleaved into: Caspase-1 subunit p20 ; Caspase-1 subunit p10]
Observed Band	22kD
Calculated Molecular Weight	45kD
Cell Pathway	Cytoplasm . Cell membrane .
Tissue Specificity	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.
Function	Alternative products:Additional isoforms seem to exist,Catalytic activity:Strict requirement for an Asp residue at position P1 and has a preferred cleavage sequence of Tyr-Val-Ala-Asp-[-],enzyme regulation:Specifically inhibited by the cowpox virus Crma protein.,Function:Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis.,PTM:The two subunits are derived from the precursor sequence by an autocatalytic mechanism.,similarity:Belongs to the peptidase C14A family.,similarity:Contains 1 CARD domain.,subunit:Heterotetramer that





consists of two anti-parallel arranged heterodimers, each one formed by a 20 kDa (p20) and a 10 kDa (p10) subunit. The p20 subunit can also form a heterodimer with the epsilon isoform which then has an inhibitory effect. May be a component of the inflammasome, a protein complex which also includes PYCARD, CARD8 and NALP2 and whose function would be the activation of proinflammatory caspases. Interacts with CARD17/INCA and CARD18.,tissue specificity: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.,

Background

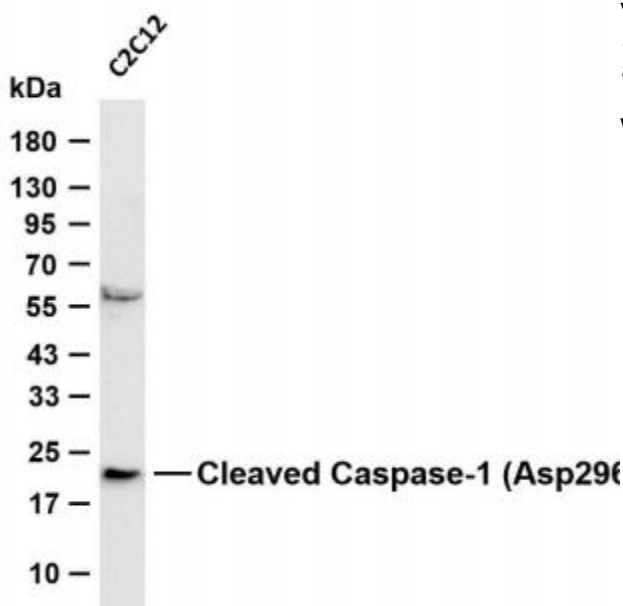
This gene encodes a protein which is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues 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],

matters needing attention

Avoid repeated freezing and thawing!

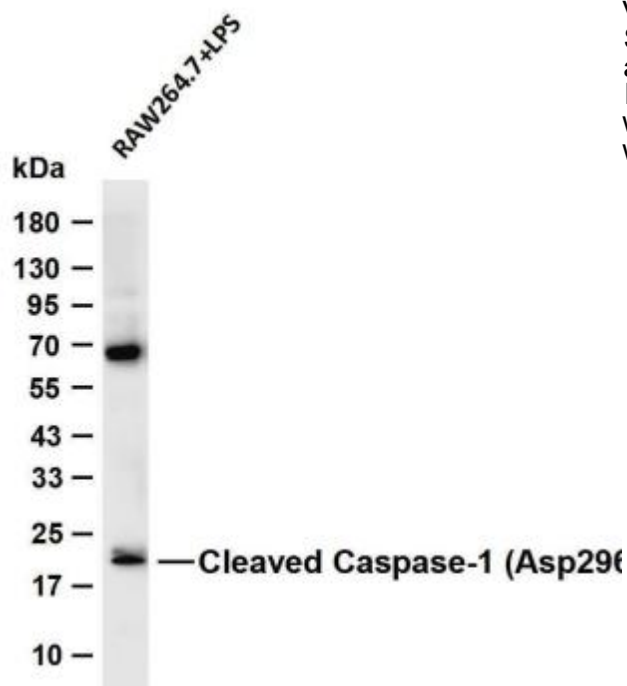
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

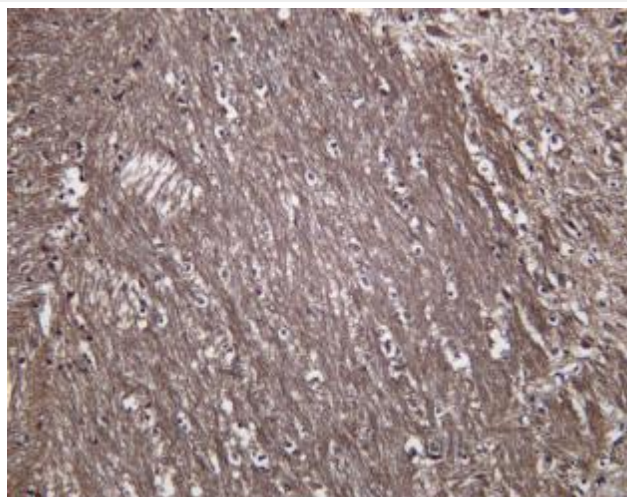


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Cleaved Caspase-1 (Asp296) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C2C12 Predicted band size: 22kDa Observed band size: 22kDa





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Mouse brain was stained with anti-Cleaved Caspase-1 (Asp296) Rabbit antibody

