

Rabbit Anti-Caspase-1 P10 antibody

SL0169R

Product Name Caspase-1 P10

Chinese Name 天冬氨酸-胱氨酸特异性蛋白酶家族抗体

Alias caspase-1 isoform alpha p10 subunit; CASP 1; CASP1; Caspase 1 apoptosis related cysteine peptidase; Caspase 1 apoptosis related cysteine protease; Caspase1; ICE; IL 1 beta converting enzyme; IL 1BC; IL1B convertase; IL1BC; IL1BCE; Interleukin 1 beta convertase; Interleukin 1 beta convertase precursor; Interleukin 1 beta converting enzyme; CASP-1; Interleukin-1 beta convertase; IL-1BC; Interleukin-1 beta-converting enzyme; ICE; IL-1 beta-converting enzyme; p45; Caspase-1 subunit p10; CASP1_HUMAN.

Research Area Tumour Cell biology Apoptosis

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human Mouse Rat

Applications IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 10/45kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Caspase-1: 320-404/404

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Human,Mouse,Rat1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

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 of this gene results in five transcript variants encoding distinct isoforms. [provided by RefSeq].

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.

**Product
Detail**

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.

Subcellular Location:

Cytoplasm.

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.

Post-translational modifications:

The two subunits are derived from the precursor sequence by an autocatalytic mechanism.

Similarity:

Belongs to the peptidase C14A family.

Contains 1 CARD domain.

SWISS:
P29466

Gene ID:
834

Database links:

[Entrez Gene: 834](#) Human

[Entrez Gene: 12362](#) Mouse

[Entrez Gene: 25166](#) Rat

[Omim: 147678](#) Human

[SwissProt: P29466](#) Human

[SwissProt: P29452](#) Mouse

[SwissProt: P43527](#) Rat

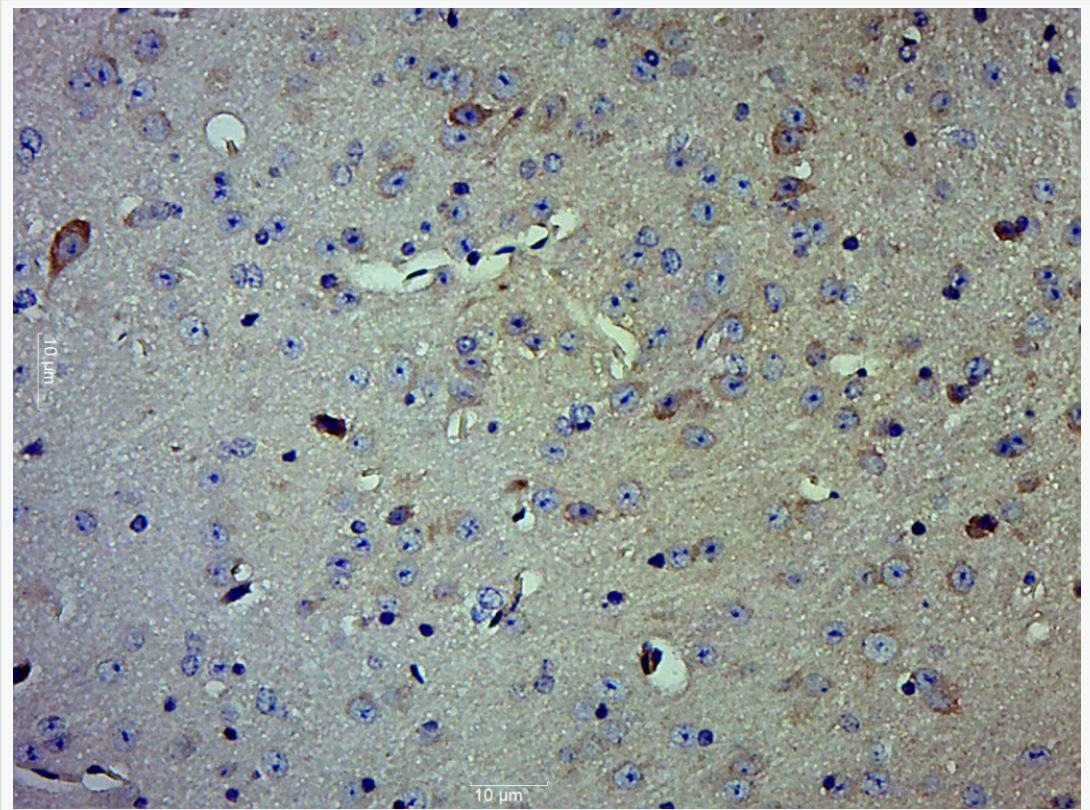
[Unigene: 2490](#) Human

[Unigene: 1051](#) Mouse

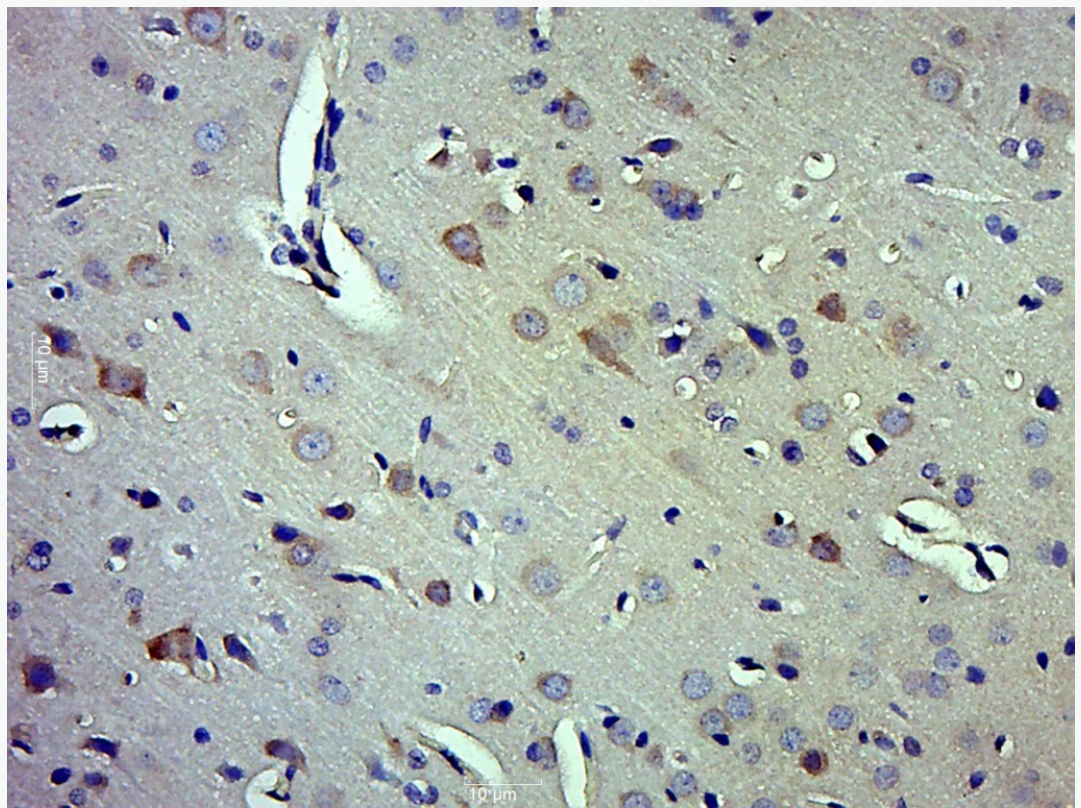
[Unigene: 37508](#) Rat

Caspase-1 是半胱氨酸蛋白中的一种酶，参与 Apoptosis 的调控。它主要用于各种良、恶性 Tumour 的研究。

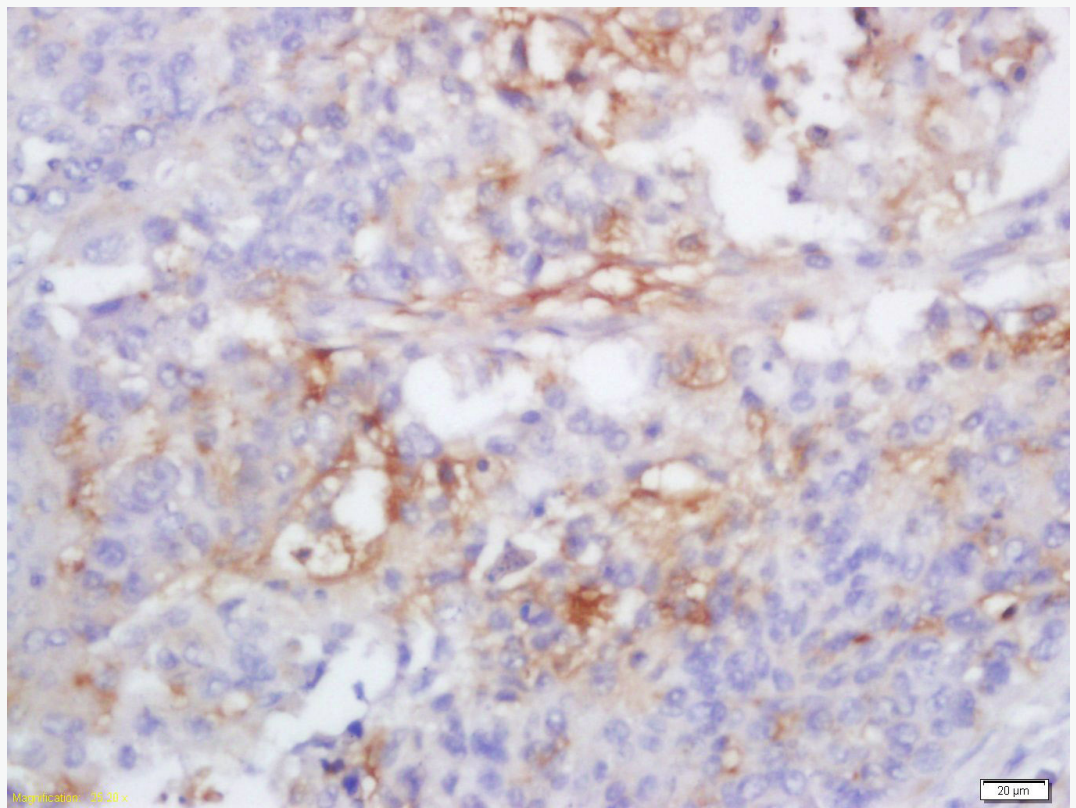
**Product
Picture**



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Caspase-1 P10) Polyclonal Antibody, Unconjugated (SL0169R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Caspase-1 P10) Polyclonal Antibody, Unconjugated (SL0169R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

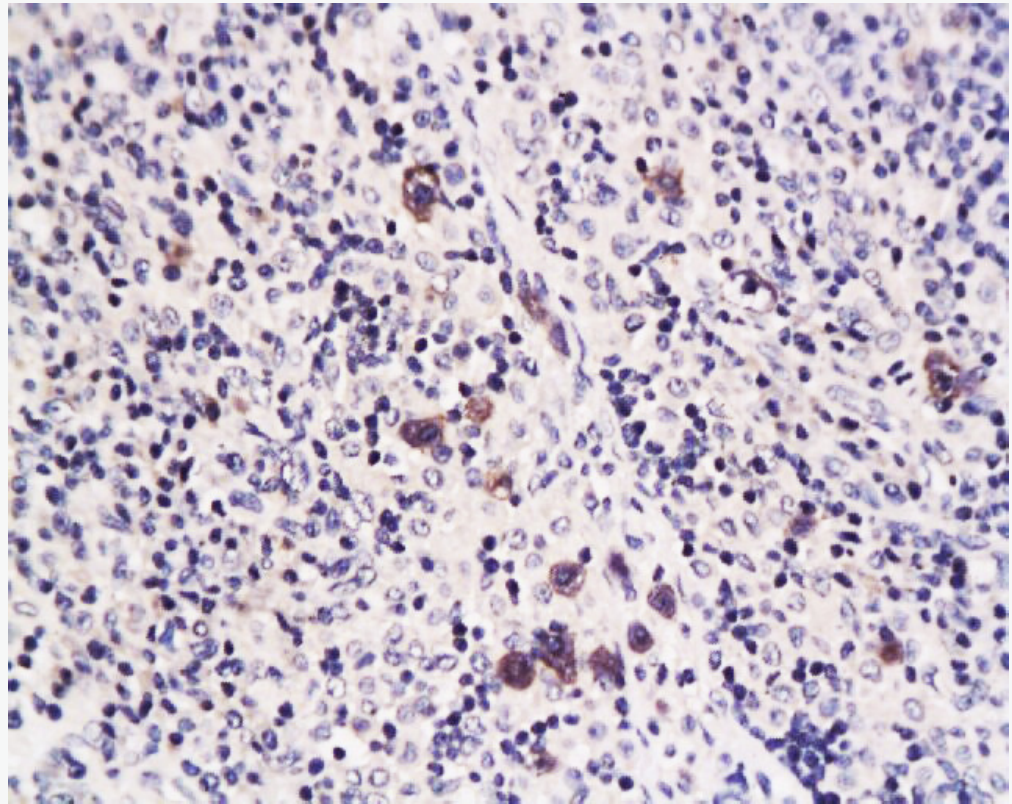


Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (Human,Mouse,Rat1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min;

Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Caspase-1 Polyclonal Antibody, Unconjugated(SL0169R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

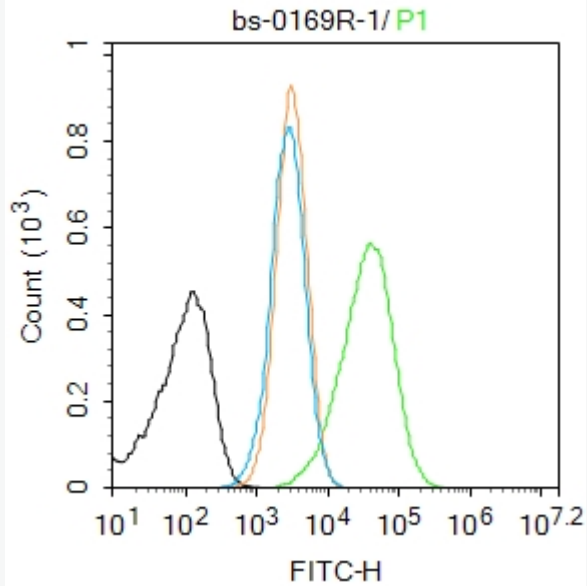


Tissue/cell: rat transplant lymphoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (Human,Mouse,Rat1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min;

Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Caspase-1 Polyclonal Antibody, Unconjugated(SL0169R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control:HL-60.

Primary Antibody (green line): Rabbit Anti-Caspase-1 P10 antibody (SL0169R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF488

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.



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Acquisition of 20,000 events was performed.