



Rabbit Anti-Caspase-1 p20 antibody

SL10442R

Product Name Caspase-1 p20**Chinese Name** 天冬氨酸-胱氨酸特异性蛋白酶家族抗体**Alias**

caspase-1 isoform alpha p20 subunit; CASP1; ICE; IL1BC; Caspase-1 subunit p20; CASP 1; Caspase 1 apoptosis related cysteine peptidase; Caspase 1 apoptosis related cysteine protease; Caspase1; IL 1 beta converting enzyme; IL 1BC; IL1B convertase; 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; CASP1_HUMAN; CASP1_MOUSE.

Research Area

Tumour Cell biology Apoptosis

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

Human, Mouse, Rat,

Applications

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 μ g/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

20/46kDa

Cellular localization

cytoplasmic

Form

Liquid

Concentration

1mg/ml

immunogen

KLH conjugated synthetic peptide derived from mouse Caspase-1 p20: 181-280/402

Lsotype

IgG

Purification

affinity purified by Protein A

Buffer Solution

Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 1M PBS, pH 7.4

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:

P29452

Gene ID:
12362

Database links:

[Entrez Gene: 12362](#) Mouse

[Entrez Gene: 25166](#) Rat

[SwissProt: P29466](#) Human

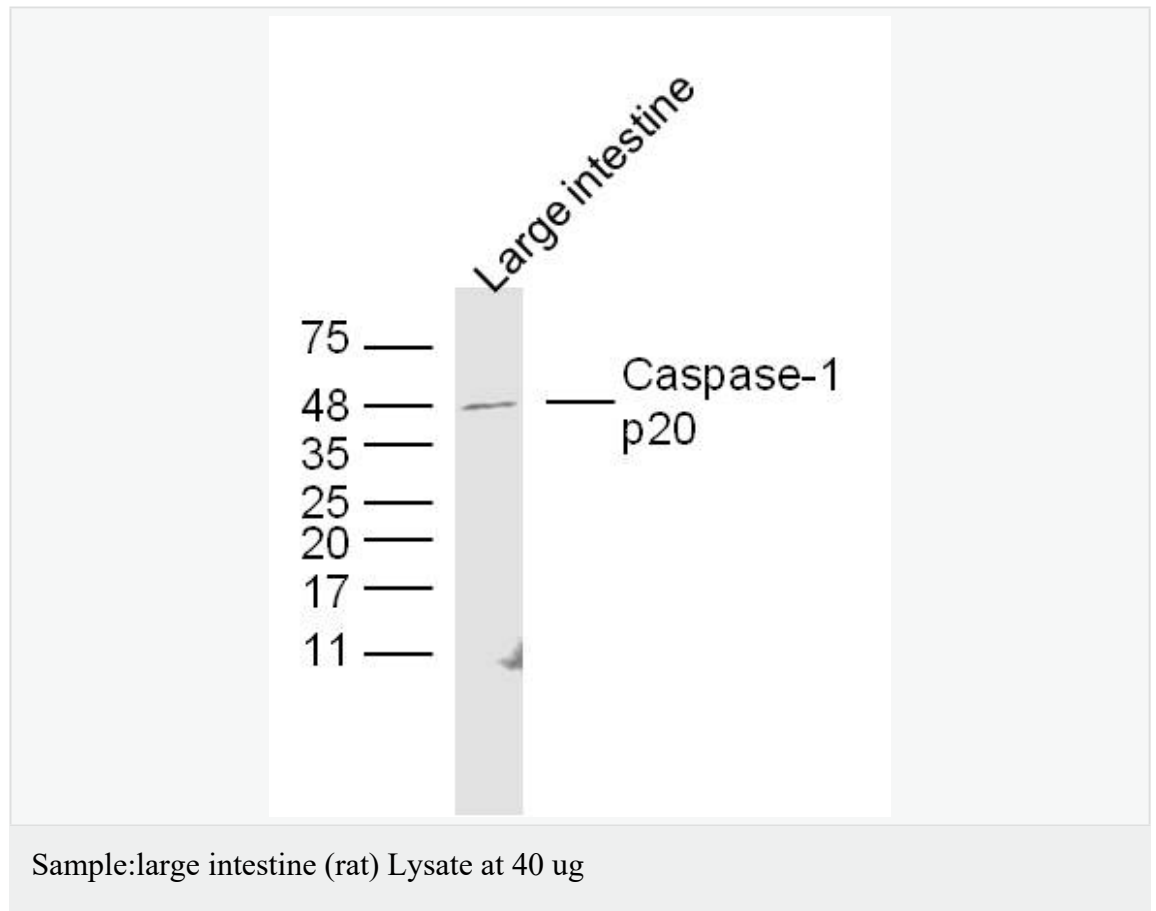
[SwissProt: P29452](#) Mouse

[SwissProt: P43527](#) Rat

[Unigene: 1051](#) Mouse

[Unigene: 37508](#) Rat

**Product
Picture**

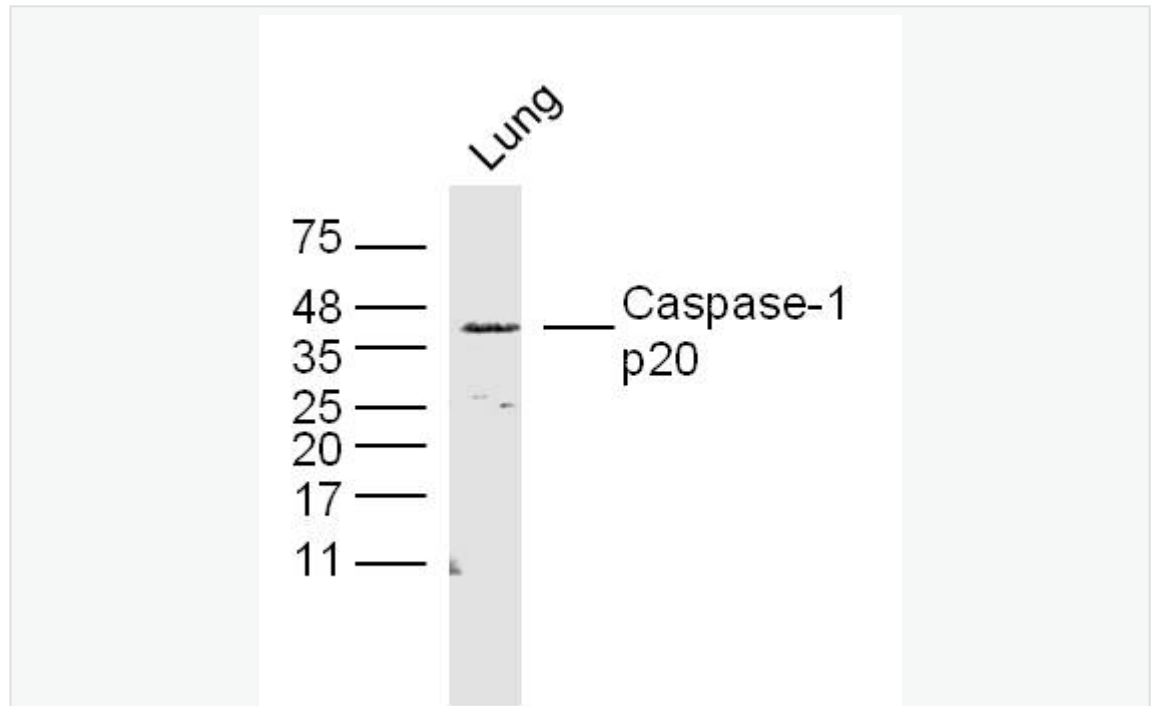


Primary: Anti-Caspase-1 p20(SL10442R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 20/46kD

Observed band size: 46kD



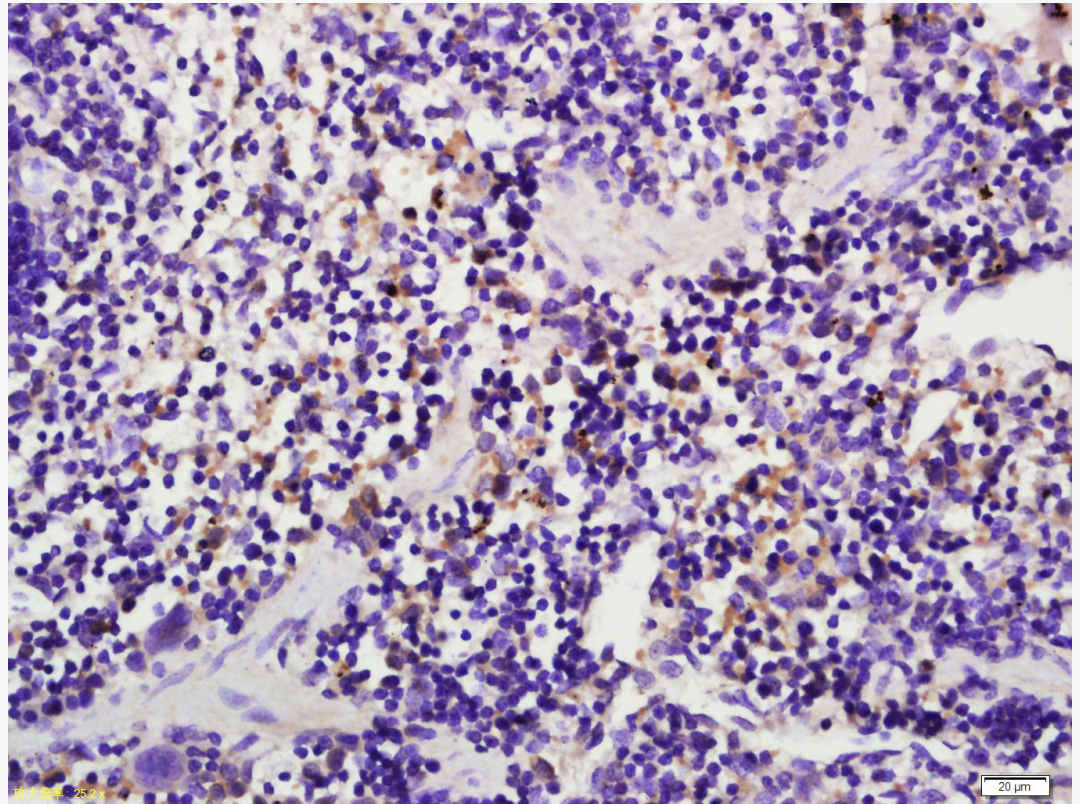
Sample:lung (rat) Lysate at 40 ug

Primary: Anti-Caspase-1 p20(SL10442R)at 1/300 dilution

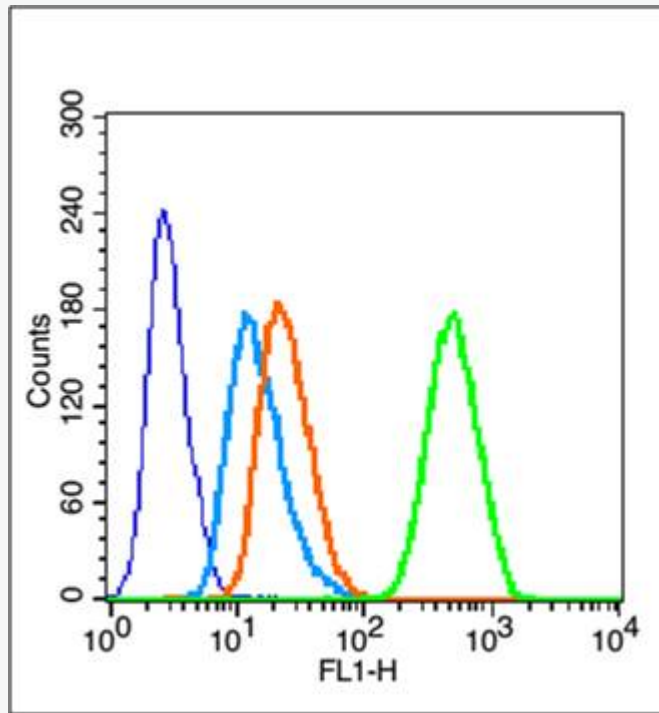
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 20/46kD

Observed band size: 46kD



Tissue/cell: Mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, 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 p20 Polyclonal Antibody, Unconjugated(SL10442R)
1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023)
and DAB(C-0010) staining



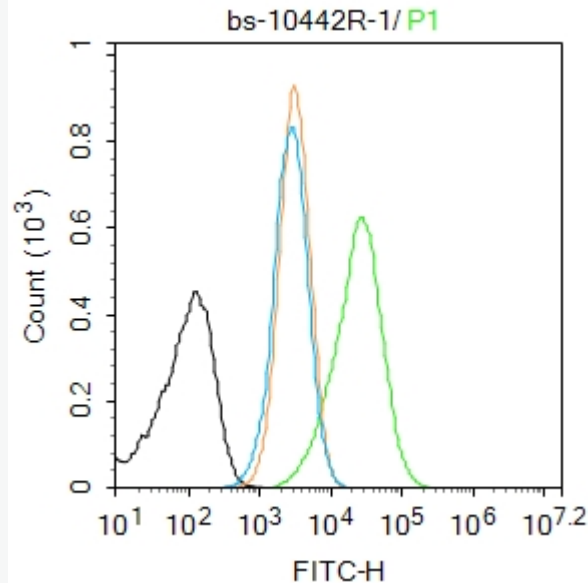
Blank control (blue line): MCF7(fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice)

Primary Antibody (green line): Rabbit Anti-Caspase-1 p20 antibody (SL10442R),

Dilution: 1µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC<,Dilution: 1µg /test.



Blank control:HL-60.

Primary Antibody (green line): Rabbit Anti-Caspase-1 p20 antibody (SL10442R)

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.



SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Acquisition of 20,000 events was performed.