

Anti-Caspase-1 p20 Antibody

ER1905-47



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, FC
Molecular Wt:	20/46 KDa

Description: Caspase-1/Interleukin-1 converting enzyme (ICE) is an evolutionarily conserved enzyme that proteolytically cleaves other proteins, such as the precursors of the inflammatory cytokines interleukin 1 β and interleukin 18 as well as the pyroptosis inducer Gasdermin D, into active mature peptides. It plays a central role in cell immunity as an inflammatory response initiator. Once activated through formation of an inflammasome complex, it initiates a proinflammatory response through the cleavage and thus activation of the two inflammatory cytokines, interleukin 1 β (IL-1 β) and interleukin 18 (IL-18) as well as pyroptosis, a programmed lytic cell death pathway, through cleavage of Gasdermin D. The two inflammatory cytokines activated by Caspase-1 are excreted from the cell to further induce the inflammatory response in neighboring cells. Activated Caspase 1 proteolytically cleaves pro IL-1 β and pro IL-18 into their active forms, IL-1 β and IL-18. The active cytokines lead to a downstream inflammatory response. It also cleaves Gasdermin D into its active form, which leads to pyroptosis. Once matured, the cytokines initiate downstream signaling events to induce a proinflammatory response as well as to activate the expression of antiviral genes. Following the inflammatory response, an activated Caspase-1 can induce pyroptosis, a lytic form of cell death, depending on the signal received as well as the specific inflammasome sensor domain protein that received it. Caspase-1 has also been shown to induce necrosis and may also function in various developmental stages.

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

Positive control: lung (rat) Lysate, large intestine (rat) Lysate, MCF7 cell.

Subcellular location: Cytoplasm.

Database links: SwissProt: P29466 Human

Recommended Dilutions:

WB	1:500-2000
IHC-P	1:100-500
IF-tissue	1:100-500
FC	1 μ g/Test

Storage Buffer: Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 0.01M PBS, pH 7.4

Storage Instruction: Store at -20 $^{\circ}$ C for one year. Avoid repeated freeze/thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

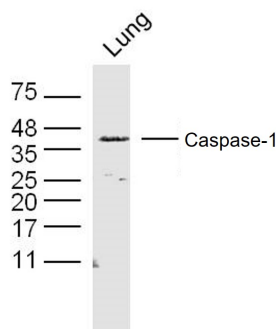
Technical:0086-571-89986345

Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

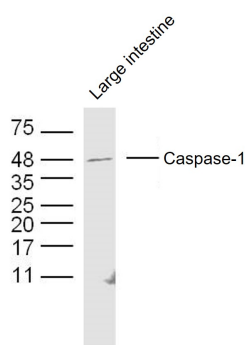
**Fig1:** Sample:lung (rat) Lysate at 40 ug

Primary: Anti-Caspase-1 p20(ER1905-47)at 1/300 dilution

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

Predicted band size: 20/46kD

Observed band size: 46kD

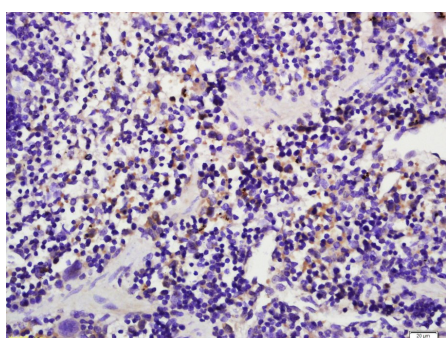
**Fig2:** Sample:large intestine (rat) Lysate at 40 ug

Primary: Anti-Caspase-1 p20(ER1905-47)at 1/300 dilution

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

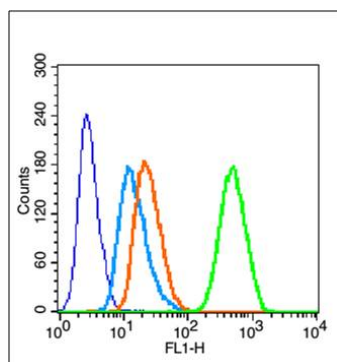
Predicted band size: 20/46kD

Observed band size: 46kD

**Fig3:** Tissue/cell: Mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, 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℃ for 20 min;

Incubation: Anti-Caspase-1 p20 Polyclonal Antibody, Unconjugated(ER1905-47) 1:500, overnight at 4℃, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

**Fig4:** Blank control (blue line): MCF7(fixed with 70% ethanol (Overnight at 4℃) and then permeabilized with 90% ice-cold methanol for 30 min on ice)

Primary Antibody (green line): Rabbit Anti-Caspase-1 p20 antibody (ER1905-47),

Dilution: 1μg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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