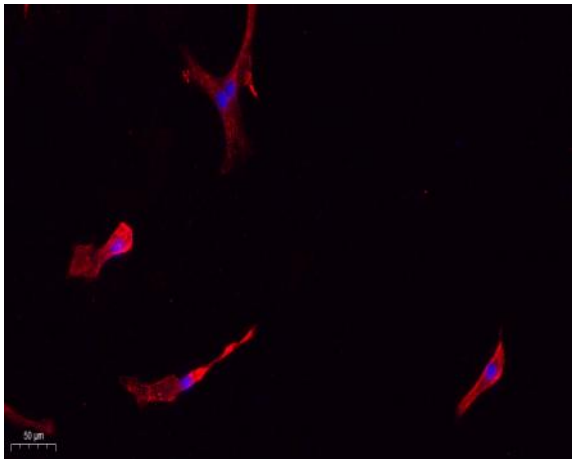
Best Tools for immunology Research

Caspase-1 Polyclonal Antibody

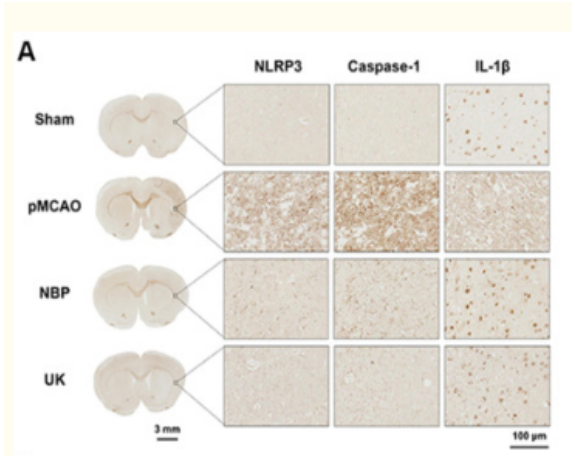
Catalog No :	YT5743
Reactivity :	Human;Mouse;Rat
Applications :	IF;WB;IHC;ELISA
Target :	Caspase-1
Fields :	>>Necroptosis;>>Neutrophil extracellular trap formation;>>NOD-like receptor signaling pathway;>>Cytosolic DNA-sensing pathway;>>C-type lectin receptor signaling pathway;>>Amyotrophic lateral sclerosis;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Salmonella infection;>>Pertussis;>>Legionellosis;>>Yersinia infection;>>Influenza A;>>Coronavirus disease - COVID-19;>>Lipid and atherosclerosis
Gene Name :	CASP1 IL1BC IL1BCE
Protein Name :	Caspase1
Human Gene Id :	834
Human Swiss Prot No :	P29466
Mouse Gene Id :	12362
Mouse Swiss Prot No :	P29452
Rat Swiss Prot No :	P43527
Immunogen :	The antiserum was produced against synthesized peptide derived from the C-terminal region of human CASP1. AA range:350-400
Specificity :	Caspase-1 Polyclonal Antibody detects endogenous levels of Caspase-1
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG

Dilution :	IF 1:50-200 WB 1:500-2000, IHC 1:50-300, ELISA 1:10000-20000
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	45kD
Observed Band :	45kD, 35kD, cleaced isform p10 :10kD
Cell Pathway :	NOD-like receptor;Cytosolic DNA-sensing pathway;Amyotrophic lateral sclerosis (ALS);
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],
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 subu
Subcellular Location :	Cytoplasm . Cell membrane .
Expression :	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.

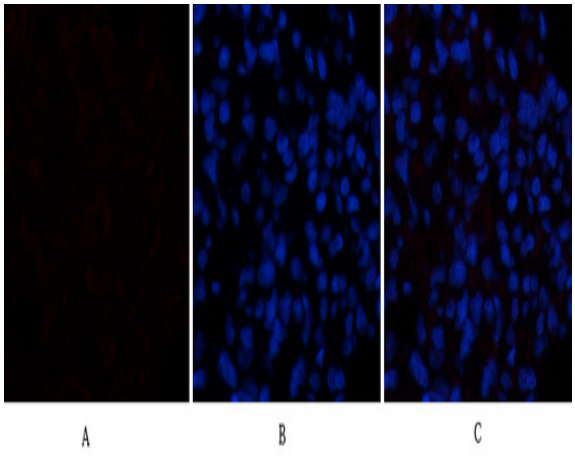
Products Images



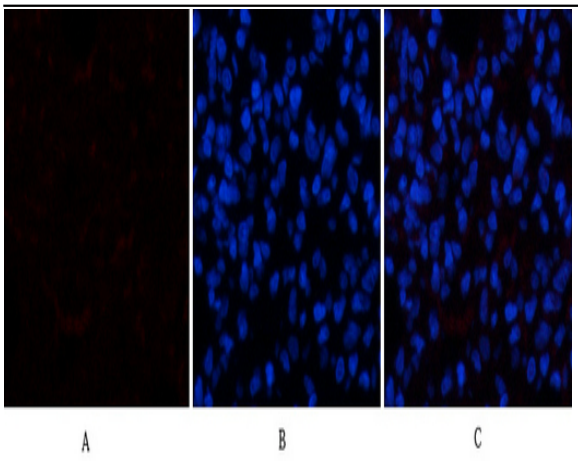
Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



Liu, Xi et al. “Dl-3-n-butylphthalide inhibits neuroinflammation by stimulating foxp3 and Ki-67 in an ischemic stroke model.” Agingvol. 13,3 (2021): 3763-3778. doi:10.18632/aging.202338



Immunofluorescence analysis of rat-lung tissue. 1,Caspase-1 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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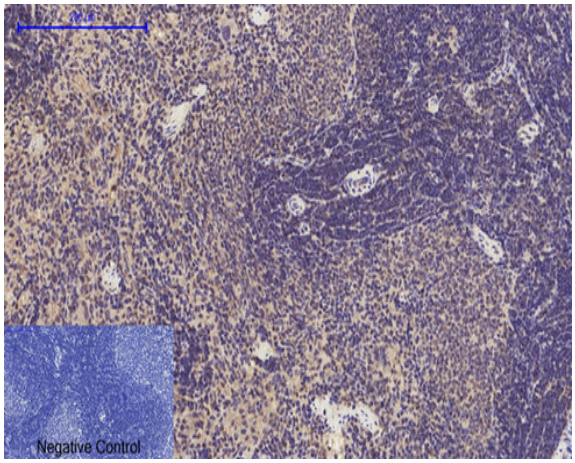
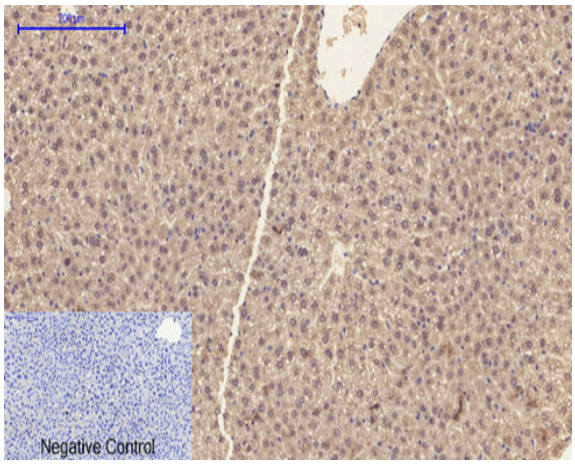
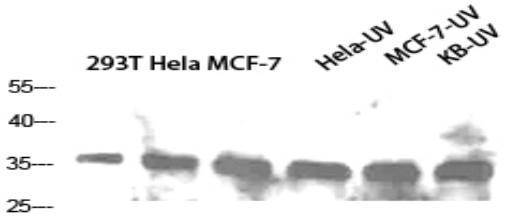


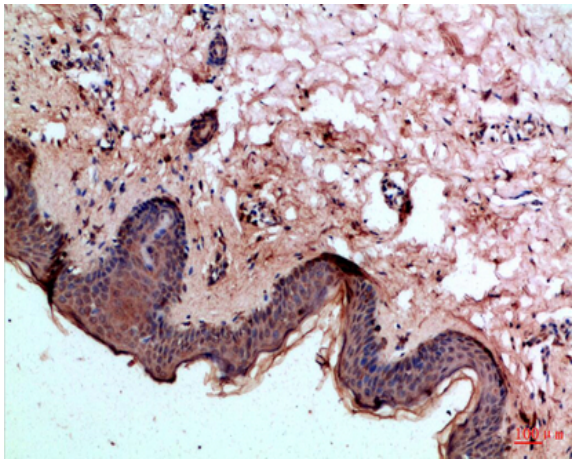
Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1,Caspase-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



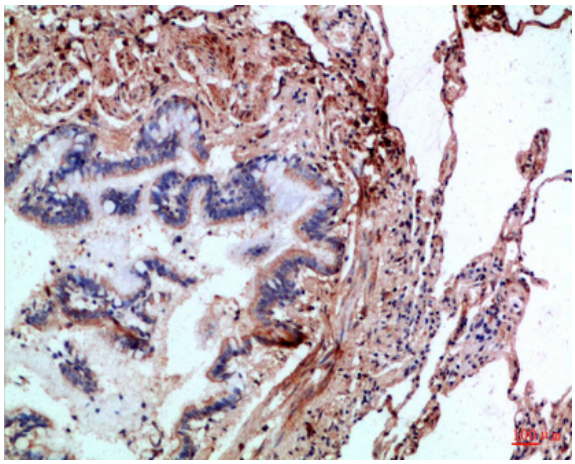
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1,Caspase-1 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



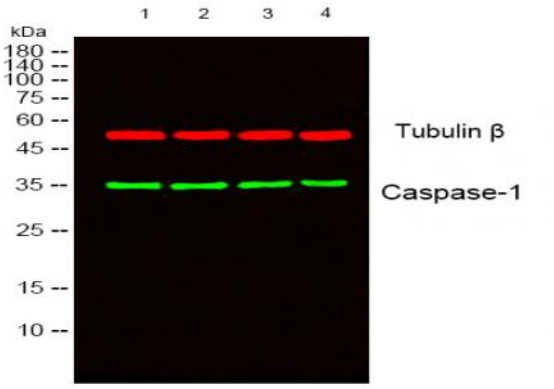
Western Blot analysis of 293T Hela MCF-7 Hela-UV MCF-7-UV KB-UV cells using Caspase-1 Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded Human-skin, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded Human-lung, antibody was diluted at 1:100



Western blot analysis of lysates from 1) 293T , 2) Hela ,3) MCF-7, 4) Hela-UV cells, (Green) primary antibody was diluted at 1:1000, 4°over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour. (Red) Tubulin β Monoclonal Antibody(5G3) (cat:YM3030) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23710)was diluted at 1:10000, 37° 1hour.