



Rabbit Anti-Caspase-9 antibody

SL0049R

Product Name:	Caspase-9
Chinese Name:	活化半胱氨酸蛋白酶蛋白-9抗体
Alias:	Caspase-9 subunit p35; Apaf-3; APAF 3; APAF3; Apoptosis related cysteine peptidase; Apoptotic protease activating factor 3; Apoptotic protease MCH 6; Apoptotic protease MCH6; CASP 9; CASP9; Caspase 9; Caspase 9 apoptosis related cysteine protease; Caspase 9 precursor; Caspase 9c; Caspase9; Caspase9 subunit p10; ICE LAP6; ICE like apoptotic protease 6; RNCASP9; MCH 6; MCH6; OTTHUMP00000044594; CASP9 HUMAN.
文献引用 	<p>Specific References(6)SL0049R has been referenced in 6 publications.</p> <p>[IF=3.95]Wang, Gang, et al. "Inhibition of hydrogen sulfide synthesis provides protection for severe acute pancreatitis rats via apoptosis pathway." <i>Apoptosis</i> (2013): 1-15.IHC-P;Rat. PubMed:23054084</p> <p>[IF=5.47]Pan, Bo, et al. "c-Abl Tyrosine Kinase Mediates Neurotoxic Prion Peptide-Induced Neuronal Apoptosis via Regulating Mitochondrial Homeostasis." <i>Molecular Neurobiology</i> (2014): 1-15.Rat. PubMed:24510275</p> <p>[IF=5.90]Zhao, Jing, et al. "Chronic obstructive sleep apnea causes atrial remodeling in canines: mechanisms and implications." <i>Basic Research in Cardiology</i> 109.5 (2014): 1-13.WB;Dog. PubMed:25015734</p> <p>[IF=1.14]Wang, J., et al. "Esculetin, a coumarin derivative, exerts in vitro and in vivo antiproliferative activity against hepatocellular carcinoma by initiating a mitochondrial-</p>

	<p>dependent apoptosis pathway." Brazilian Journal of Medical and Biological Research (2014): 000-000.WB;Mouse.</p> <p style="text-align: center;">PubMed:25517918</p> <p>[IF=2.29]Wang, Yu, et al. "Ibutilide protects against cardiomyocytes injury via inhibiting endoplasmic reticulum and mitochondrial stress pathways." Heart and Vessels (2016): 1-8.WB;Rat.</p> <p style="text-align: center;">PubMed:27639990</p> <p>[IF=3.23]Wang, Yu, et al. "Ibutilide treatment protects against ER stress induced apoptosis by regulating calumenin expression in tunicamycin treated cardiomyocytes." PloS one 12.4 (2017): e0173469.WB;Rat.</p> <p style="text-align: center;">PubMed:28399139</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	35/50kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Caspase-9 subunit p35:11-120/416
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Caspase 9 (also known as ICE like apoptotic protease 6 (ICE LAP6), apoptotic protease Mch6, and apoptotic protease activating factor 3 (Apaf3)) is a member of the peptidase family C14 that contains a CARD domain. This caspase is active as a heterotetramer and has been reported to have two isoforms. ProCaspase 9 has been reported to be approximately 47 kD. This caspase is present in the cytosol and, upon activation, translocates to the mitochondria. Caspase 9 is involved in the caspase activation cascade responsible for apoptosis execution and cleaves/activates Caspase 3 and Caspase 6. Caspase 9 is inhibited by the dominant negative isoform, BclXL, cIAP1, cIAP2, XIAP, and Livin. This caspase becomes activated when recruited to Apaf1/cytochrome c

complex, and following cleavage by Apaf1, granzyme B, Caspase 3, possibly Caspase 8 and Caspase 10 into large p37 and small p10 subunits. Caspase 9 interacts with BIRC7 and has been shown to cleave PARP and vimentin.

Function:

Involved in the activation cascade of caspases responsible for apoptosis execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates caspase-3. Proteolytically cleaves poly(ADP-ribose) polymerase (PARP). Isoform 2 lacks activity is an dominant-negative inhibitor of caspase-9.

Subunit:

Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 35 kDa (p35) and a 10 kDa (p10) subunit. Caspase-9 and APAF1 bind to each other via their respective NH2-terminal CED-3 homologous domains in the presence of cytochrome C and ATP. Interacts (inactive form) with EFHD2. Interacts with HAX1. Interacts with BIRC2/c-IAP1, XIAP/BIRC4, BIRC5/survivin, BIRC6/bruce and BIRC7/livin.

Tissue Specificity:

Ubiquitous, with highest expression in the heart, moderate expression in liver, skeletal muscle, and pancreas. Low levels in all other tissues. Within the heart, specifically expressed in myocytes.

Post-translational modifications:

Cleavages at Asp-315 by granzyme B and at Asp-330 by caspase-3 generate the two active subunits. Caspase-8 and -10 can also be involved in these processing events. Phosphorylated at Thr-125 by MAPK1/ERK2. Phosphorylation at Thr-125 is sufficient to block caspase-9 processing and subsequent caspase-3 activation.

Similarity:

Belongs to the peptidase C14A family.
Contains 1 CARD domain.

SWISS:

P55211

Gene ID:

842

Database links:

[Entrez Gene: 842](#) Human

[Entrez Gene: 12371](#) Mouse

[Entrez Gene: 58918](#) Rat

[Oimim: 602234](#) Human

[SwissProt: P55211](#) Human

[SwissProt: Q4FJK5](#) Mouse

[SwissProt: Q920G4](#) Rat

[Unigene: 329502](#) Human

[Unigene: 88829](#) Mouse

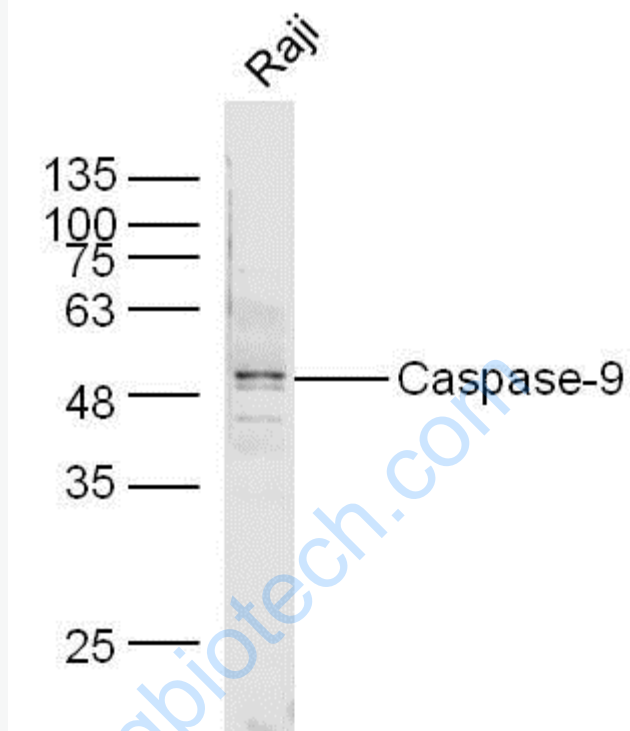
[Unigene: 32199](#) Rat

Important Note:

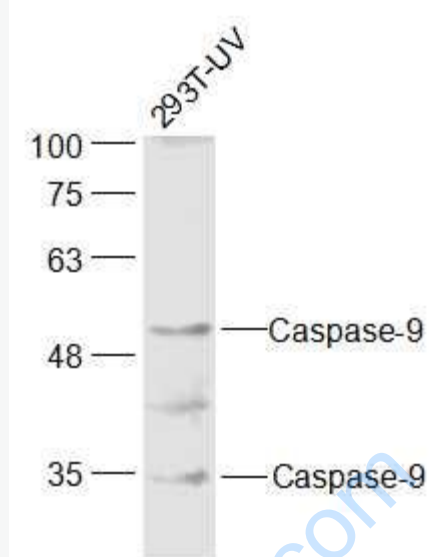
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Caspase-9半胱氨酸蛋白酶家族成员之一，又称ICE-Lap6(ICE Like apoptotase 6)参与Apoptosis过程和cell factor的加工过程，在许多胚胎和成人组织中都有分布。此抗体主要用于Tumour研究。

Picture:



Sample: Raji Cell lysate at 30ug; Primary: Anti-Caspase-9 (SL0049R) at 1:300 dilution; Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 35/50 kD Observed band size: 50 kD



Sample:

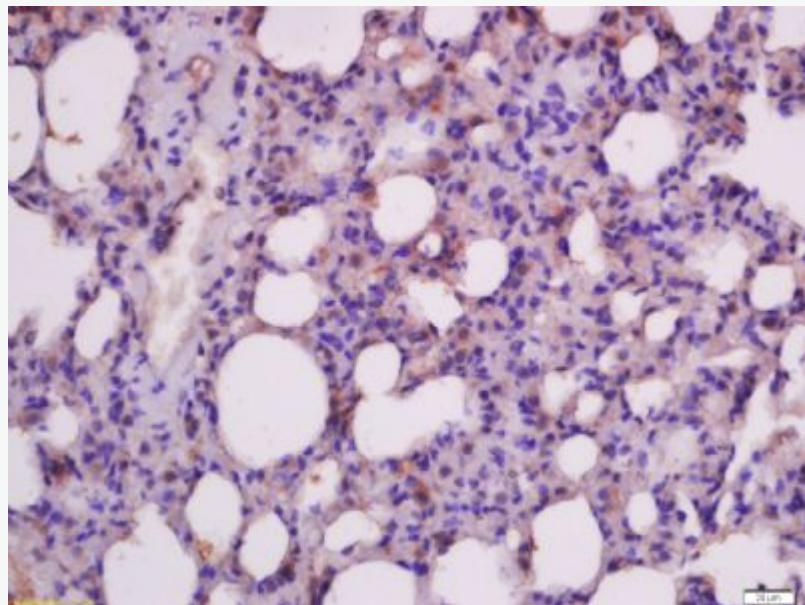
293T-UV Cell (Human) Lysate at 30 ug

Primary: Anti-Caspase-9 (Bs- 0049R) at 1/300 dilution

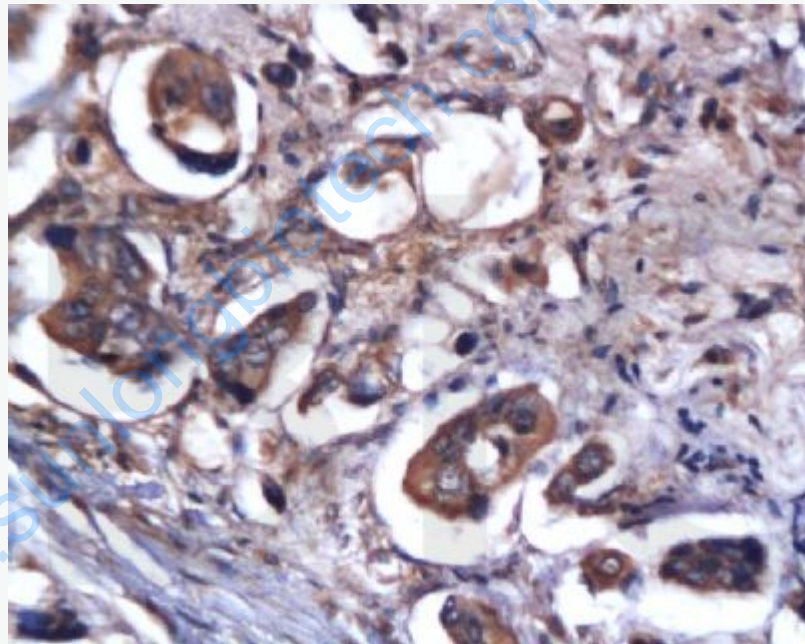
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 35/50 kD

Observed band size: 35/50 kD



Paraformaldehyde-fixed, paraffin embedded (rat lung); 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 (Insulin like growth factor 1) Polyclonal Antibody, Unconjugated (SL0049R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.

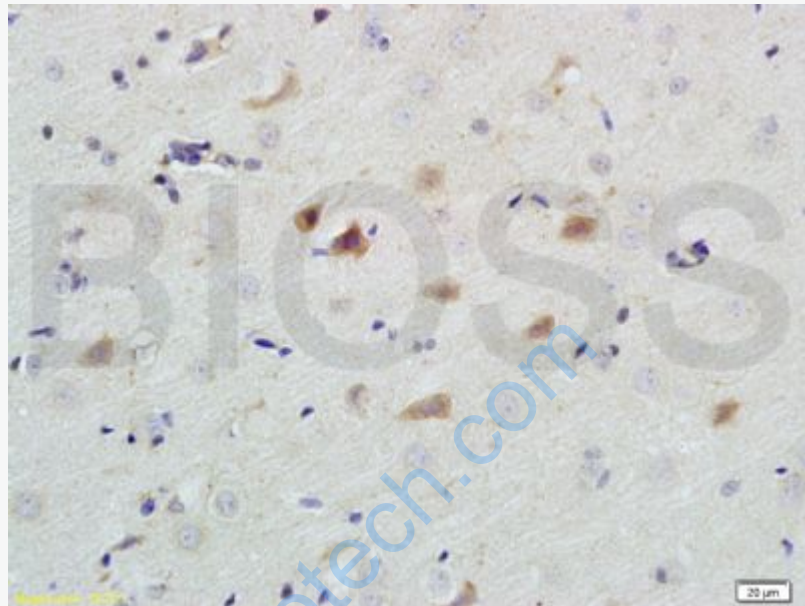


Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

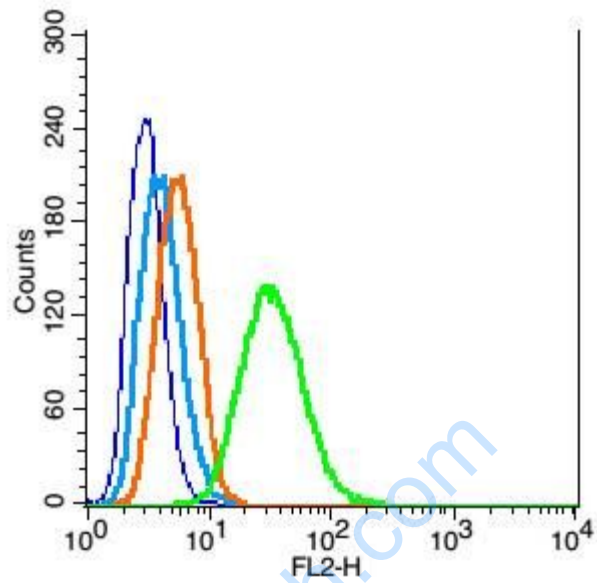
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Caspase-9 Polyclonal Antibody, Unconjugated(SL0049R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

DAB(C-0010) staining



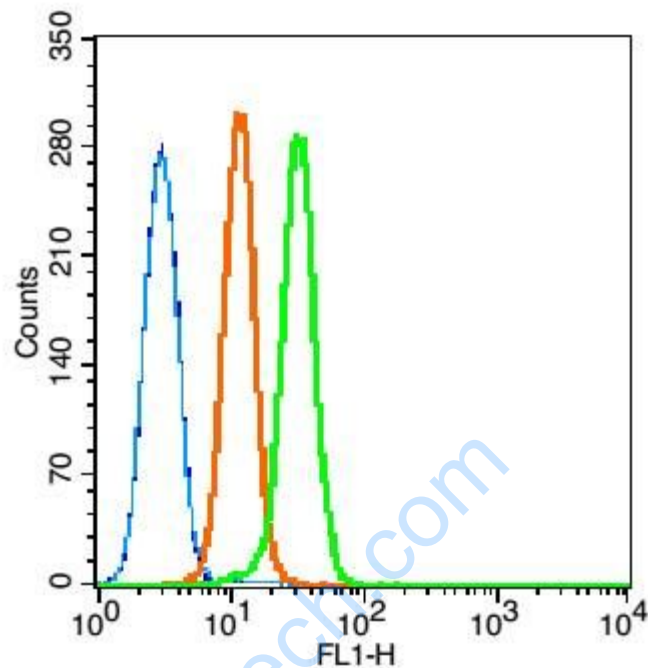
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-Caspase-9 Polyclonal Antibody, Unconjugated(SL0049R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: RSC96(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ;

Primary Antibody Dilution: 1 μ g in 100 μ L1X PBS containing 0.5% BSA(green).



Blank control: K562 (blue).

Primary Antibody: Rabbit Anti-caspase-9 antibody (SL0049R); Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions;

Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.01M PBS-Tween for 20 min . Primary antibody (SL0049R) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (30min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min at room temperature.

	Acquisition of 20,000 events was performed.
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