

CASP6 Antibody (S257)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1313d

Product Information

Application	WB, E
Primary Accession	P55212
Other Accession	Q35397 , O08738 , Q3T0P5
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB06896
Calculated MW	33310

Additional Information

Gene ID	839
Other Names	Caspase-6, CASP-6, Apoptotic protease Mch-2, Caspase-6 subunit p18, Caspase-6 subunit p11, CASP6, MCH2
Target/Specificity	This CASP6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide corresponding to amino acid residues surrounding S257 of human CASP6.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CASP6 Antibody (S257) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CASP6 (HGNC:1507)
Function	Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed: 19133298 , PubMed: 22858542 , PubMed: 27032039 , PubMed: 28864531 ,

PubMed:[30420425](#), PubMed:[32298652](#), PubMed:[8663580](#)). Acts as a non-canonical executioner caspase during apoptosis; localizes in the nucleus and cleaves the nuclear structural protein NUMA1 and lamin A/LMNA thereby inducing nuclear shrinkage and fragmentation (PubMed:[11953316](#), PubMed:[17401638](#), PubMed:[8663580](#), PubMed:[9463409](#)). Lamin-A/LMNA cleavage is required for chromatin condensation and nuclear disassembly during apoptotic execution (PubMed:[11953316](#)). Acts as a regulator of liver damage by promoting hepatocyte apoptosis: in absence of phosphorylation by AMP-activated protein kinase (AMPK), catalyzes cleavage of BID, leading to cytochrome c release, thereby participating in nonalcoholic steatohepatitis (PubMed:[32029622](#)). Cleaves PARK7/DJ-1 in cells undergoing apoptosis (By similarity). Involved in intrinsic apoptosis by mediating cleavage of RIPK1 (PubMed:[22858542](#)). Furthermore, cleaves many transcription factors such as NF-kappa-B and cAMP response element-binding protein/CREBBP (PubMed:[10559921](#), PubMed:[14657026](#)). Cleaves phospholipid scramblase proteins XKR4 and XKR9 (By similarity). In addition to apoptosis, involved in different forms of programmed cell death (PubMed:[32298652](#)). Plays an essential role in defense against viruses by acting as a central mediator of the ZBP1-mediated pyroptosis, apoptosis, and necroptosis (PANoptosis), independently of its cysteine protease activity (PubMed:[32298652](#)). PANoptosis is a unique inflammatory programmed cell death, which provides a molecular scaffold that allows the interactions and activation of machinery required for inflammasome/pyroptosis, apoptosis and necroptosis (PubMed:[32298652](#)). Mechanistically, interacts with RIPK3 and enhances the interaction between RIPK3 and ZBP1, leading to ZBP1-mediated inflammasome activation and cell death (PubMed:[32298652](#)). Plays an essential role in axon degeneration during axon pruning which is the remodeling of axons during neurogenesis but not apoptosis (By similarity). Regulates B-cell programs both during early development and after antigen stimulation (By similarity).

Cellular Location

Cytoplasm. Nucleus

Background

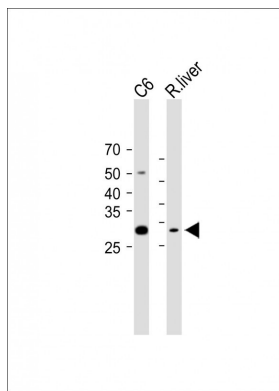
CASP6 is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This protein could be processed by caspases 7, 8 and 10, and is thought to function as a downstream enzyme in the caspase activation cascade.

References

- Schmeck, B., et al., Infect. Immun. 72(9):4940-4947 (2004).
Mendez, E., et al., J. Virol. 78(16):8601-8608 (2004).
MacLachlan, T.K., et al., Proc. Natl. Acad. Sci. U.S.A. 99(14):9492-9497 (2002).
Sordet, O., et al., Leukemia 16(8):1569-1570 (2002).
LeBlanc, A., et al., J. Biol. Chem. 274(33):23426-23436 (1999).

Images

All lanes: Anti-CASP6 Antibody (S257) at 1 : 1000 dilution
Lane 1: C6 whole cell lysate Lane 2: Rat liver lysate
Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 32 KDa



Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.