

Phospho-Caspase 6(S257) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3043a

Specification

Phospho-Caspase 6(S257) Antibody - Product Information

Application	WB, IHC-P,E
Primary Accession	P55212
Other Accession	O35397 , O08738 , O3TOP5
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33310

Phospho-Caspase 6(S257) Antibody - 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 Caspase 6 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S257 of human Caspase 6.

Dilution

WB~~1:1000
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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

Phospho-Caspase 6(S257) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Caspase 6(S257) Antibody - 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

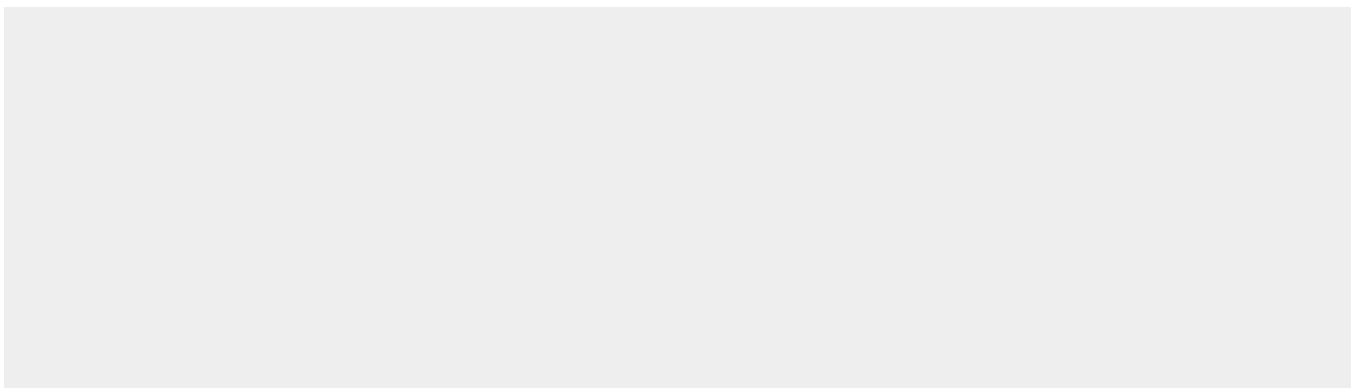
Cytoplasm. Nucleus

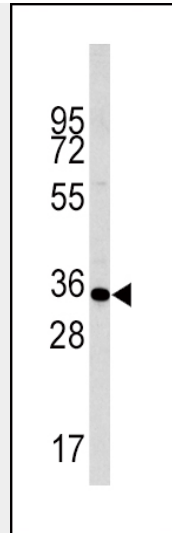
Phospho-Caspase 6(S257) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

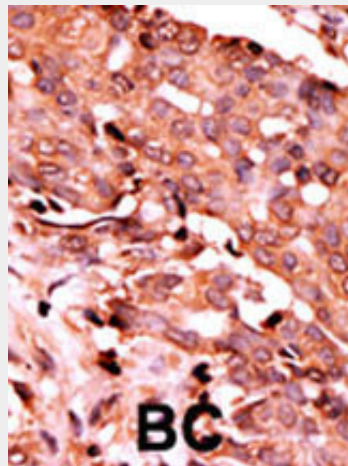
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-Caspase 6(S257) Antibody - Images





Western blot analysis of anti-Phospho-Caspase-pS257 (Cat. #AP3043a) in liver cell line lysates (35ug/lane). Casp6-pS257 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Phospho-Caspase 6(S257) Antibody - Background

Caspase 6 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.

Phospho-Caspase 6(S257) Antibody - References

Kalinin, A.E., et al., *J. Invest. Dermatol.* 124(1):46-55 (2005).
 Suzuki, A., et al., *Oncogene* 23(42):7067-7075 (2004).
 Horowitz, P.M., et al., *J. Neurosci.* 24(36):7895-7902 (2004).
 Schmeck, B., et al., *Infect. Immun.* 72(9):4940-4947 (2004).
 Mendez, E., et al., *J. Virol.* 78(16):8601-8608 (2004).