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CASP6 Antibody (S257) Blocking Peptide

Synthetic peptide
Catalog # BP1313d

Specification

CASP6 Antibody (S257) Blocking Peptide - Product Information

Primary Accession P55212

CASP6 Antibody (S257) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP1313d was selected from the S257 region of human CASP6. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CASP6 Antibody (S257) Blocking Peptide - Protein Information

Name CASP6 (HGNC:1507)

Function
Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed:8663580, PubMed:19133298, PubMed:22858542, PubMed:27032039, PubMed:28864531, PubMed:30420425, PubMed:32298652). 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:<a

href="http://www.uniprot.org/citations/8663580" target="_blank">8663580, PubMed:9463409, PubMed:11953316, PubMed:17401638). 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

CASP6 Antibody (S257) Blocking Peptide - Protocols

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

- Blocking Peptides

CASP6 Antibody (S257) Blocking Peptide - Images

CASP6 Antibody (S257) Blocking Peptide - 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.

CASP6 Antibody (S257) Blocking Peptide - 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).