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Caspase 6 (alpha) Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF4005a

Specification

Caspase 6 (alpha) Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	P55212
Other Accession	NP_001217.2, NP_116787.1, 839, 12368 (mouse), 83584 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**33310**

Caspase 6 (alpha) Antibody (internal region) - Additional Information

Gene ID 839

Other Names
Caspase-6, CASP-6, 3.4.22.59, Apoptotic protease Mch-2, Caspase-6 subunit p18, Caspase-6 subunit p11, CASP6, MCH2

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Caspase 6 (alpha) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

Caspase 6 (alpha) Antibody (internal region) - 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:<a href="http://www.uniprot.org/citations/27032039"

target="_blank">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: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

Caspase 6 (alpha) Antibody (internal region) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Caspase 6 (alpha) Antibody (internal region) - Images

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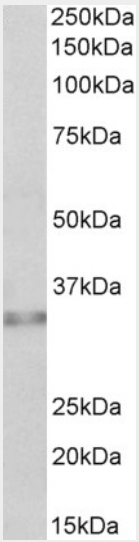

AF4005a (0.5 µg/ml) staining of Human Colon lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Caspase 6 (alpha) Antibody (internal region) - Background

This antibody is expected to recognize reproted isoform alpha (NP_001217.2) only. The immunizing peptide overlaps phosphorylated serine 257 and therefore this antibody is not expected to recognize the phosphorylated protein.

Caspase 6 (alpha) Antibody (internal region) - References

Allosteric peptides bind a caspase zymogen and mediate caspase tetramerization. Stanger K, Steffek M, Zhou L, Pozniak CD, Quan C, Franke Y, Tom J, Tam C, Elliott JM, Lewcock JW, Zhang Y, Murray J, Hannoush RN. Nature chemical biology 2012 Jul 8 (7): 655-60. PMID: 22683611