



Caspase-6 (16F8) Rabbit Monoclonal Antibody

Caspase-6 (16F8) Rabbit Monoclonal Antibody Catalog # AP93679

Product Information

Application WB, IHC **Primary Accession** WB, IHC

Reactivity Rat, Human, Mouse

Clonality Monoclonal Calculated MW 33310

Additional Information

Gene ID 839

Other Names Caspase-6, CASP-6, CSP-6, 3.4.22.59, Apoptotic protease Mch-2, Caspase-6

subunit p18, Caspase-6 subunit p20, Caspase-6 subunit p11, Caspase-6

subunit p10, CASP6 (HGNC:1507)

Dilution WB~~1:1000 IHC~~1:100~500

Storage Conditions -20°C

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:<u>22858542</u>, PubMed:<u>27032039</u>, PubMed:<u>28864531</u>,

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:<u>11953316</u>). 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:<u>32029622</u>). Cleaves PARK7/DJ-1 in cells undergoing apoptosis (By similarity). Involved in intrinsic apoptosis by mediating cleavage of RIPK1 (PubMed:<u>22858542</u>). Furthermore, cleaves many transcription factors such as

NF-kappa-B and cAMP response element-binding protein/CREBBP

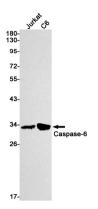
(PubMed:<u>10559921</u>, PubMed:<u>14657026</u>). Cleaves phospholipid scramblase proteins XKR4 and XKR9 (By similarity). In addition to apoptosis, involved in different forms of programmed cell death (PubMed:<u>32298652</u>). Plays an

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

Images



Western blot detection of Caspase-6 in Jurkat,C6 cell lysates using Caspase-6 antibody(1:1000 diluted).

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