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Caspase-6 (Active) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10127

Specification

Caspase-6 (Active) Antibody - Product Information

Application	**WB**
Primary Accession	P55212
Other Accession	AAH00305
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**33310**

Caspase-6 (Active) Antibody - Additional Information

Gene ID 839

Application & Usage	**Western blotting (0.5-4 µg/ml) and immunofluorescence. However, the optimal conditions should be determined individually. The antibody detects the large subunit (18 kDa) of the active caspase-6. The antibody does not recognize other caspases.**

Other Names
CASP6, CASP-6 , MCH2

Target/Specificity
Caspase-6 (Active)

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-active caspase-6 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

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

Caspase-6 (Active) 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: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: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 (Active) 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 Cytomety
- Cell Culture

Caspase-6 (Active) Antibody - Images

Caspase-6 (Active) Antibody - Background

Caspase family of cysteine proteases has been shown to play a key role in apoptosis. Similar to other caspases, caspase-6 is also synthesized as an inactive pro-enzyme that is processed in cells undergoing apoptosis. Together with caspase-3, caspase-6 is one of the major caspases in apoptotic cells, and functions downstream of apoptosis inhibitors Bcl-2 and Bcl-xL. Caspase-6 has also been shown involving in the proteolysis of poly (ADP-ribose) polymerase (PARP) and nuclear lamin A.