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Caspase-9 Antibody

Catalog # ASC10049

Product Information

Application	WB, IF, IP, ICC, E
Primary Accession	P55211
Other Accession	P55211, 28558771
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	46281
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Caspase-9 antibody can be used for detection of caspase-9 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 2 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	842
Other Names	Caspase-9 Antibody: MCH6, APAF3, APAF-3, PPP1R56, ICE-LAP6, MCH6, Caspase-9, Apoptotic protease Mch-6, CASP-9, caspase 9, apoptosis-related cysteine peptidase
Target/Specificity	CASP9; Caspase-9 antibody is predicted to have no cross reactivity to other members in the caspase family.
Reconstitution & Storage	Caspase-9 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Caspase-9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CASP9
Synonyms	MCH6
Function	Involved in the activation cascade of caspases responsible for apoptosis execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates effector caspases caspase-3 (CASP3) or caspase-7 (CASP7). Promotes DNA damage- induced apoptosis in a ABL1/c-Abl-dependent manner. Proteolytically cleaves poly(ADP-ribose)

	polymerase (PARP). Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC (PubMed:36758105, PubMed:36758106).
Tissue Location	Ubiquitous, with highest expression in the heart, moderate expression in liver, skeletal muscle, and pancreas. Low levels in all other tissues. Within the heart, specifically expressed in myocytes.

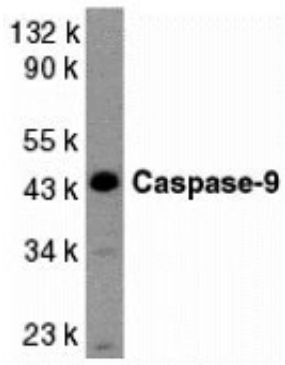
Background

Caspase-9 Antibody: Apoptosis is related to many diseases and induced by a family of cell death receptors and their ligands. Cell death signals are transduced by death domain containing adapter molecules and members of the caspase family of proteases. A novel member in the caspase family was recently identified and designated ICE-LAP6, Mch6, and Apaf-3. Caspase-9 and Apaf-1 bind to each other, which leads to caspase-9 activation. Caspase-9 is also activated by granzyme B and CPP32. Activated caspase-9 cleaves and activates caspase-3 that is one of the key proteases, being responsible for the proteolytic cleavage of many key proteins in apoptosis. Caspase-9 play a central role in cell death induced by a wide variety of apoptosis activators including TNFα, TRAIL, anti-CD-95, FADD, and TRADD. Caspase-9 is expressed in a variety of human tissues.

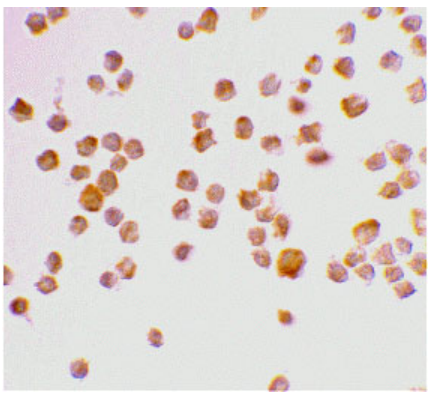
References

Duan H, Orth K, Chinnaiyan AM, et al. ICE-LAP6, a novel member of the ICE/Ced-3 gene family, is activated by the cytotoxic T cell protease granzyme B. J. Biol. Chem. 1996; 271:16720-4
Srinivasula SM, Fernandes-Alnemri T, Zangrilli J, et al. The Ced-3/interleukin 1β converting enzyme-like homolog Mch6 and the lamin-cleaving enzyme Mch2α are substrates for the apoptotic mediator CPP32. J. Biol. Chem. 1996; 271:27099-106

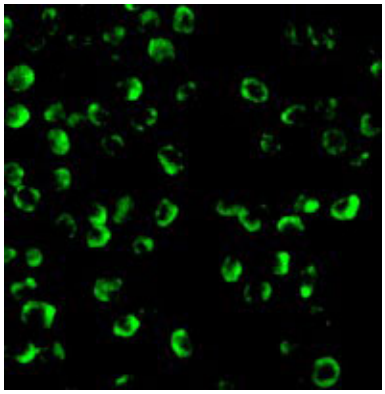
Images



Western blot analysis of caspase-9 in HeLa whole cell lysate with Caspase-9 antibody at 1 µg/mL.



Immunocytochemistry staining of K562 cells using Caspase-9 antibody at 2 µg/mL.



Immunofluorescence of Caspase-9 in K562 cells with Caspase-9 antibody at 20 µg/mL.