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Apaf1 Antibody

Catalog # ASC10039

Product Information

Application	WB, E, IHC-P
Primary Accession	O14727
Other Accession	AAC51678, 2330015
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	141840
Conjugate	Unconjugated
Application Notes	Apaf1 antibody can be used for detection of Apaf1 by Western blot at 1 g/mL. Human heart tissue lysate can be used as positive control and a 130 kDa band should be detected. Antibody can also be used for immunohistochemistry starting at 20 g/mL.

Additional Information

Gene ID	317
Other Names	Apaf1 Antibody: CED4, APAF-1, KIAA0413, Apoptotic protease-activating factor 1, apoptotic peptidase activating factor 1
Target/Specificity	APAF1;
Reconstitution & Storage	Apaf1 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	Apaf1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	APAF1 (HGNC:576)
Synonyms	KIAA0413
Function	Oligomeric Apaf-1 mediates the cytochrome c-dependent autocatalytic activation of pro-caspase-9 (Apaf-3), leading to the activation of caspase-3 and apoptosis. This activation requires ATP. Isoform 6 is less effective in inducing apoptosis.
Cellular Location	Cytoplasm.

Tissue Location	Ubiquitous. Highest levels of expression in adult spleen and peripheral blood leukocytes, and in fetal brain, kidney and lung. Isoform 1 is expressed in heart, kidney and liver

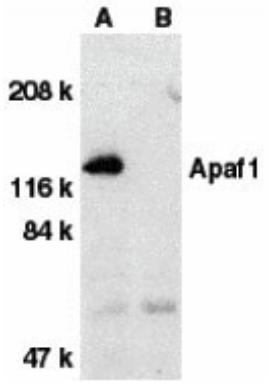
Background

Apaf1 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. The mammalian homologous of the key cell death gene CED-4 in C. elegans was identified recently from human and mouse and designated Apaf1 for apoptosis protease-activating factor 1. Apaf1 binds to cytochrome c (Apaf2) and caspase-9 (Apaf3), which leads to caspase-9 activation. Activated caspase-9 in turn cleaves and activates caspase-3 that is one of the key proteases, being responsible for the proteolytic cleavage of many key proteins in apoptosis. Apaf1 can also associate with caspase-4 and caspase-8. Apaf1 transcript is ubiquitously expressed in human tissues.

References

Zou H, Henzel WJ, Liu X, Lutschg A, Wang X. Apaf1, a human protein homologous to C. elegans CED-4, participates in cytochrome c-dependent activation of caspase-3. Cell 1997;90:405-13
Cecconi F, Alvarez-Bolado G, Meyer BI, Roth KA, Gruss P. Apaf1 (CED-4 homolog) regulates programmed cell death in mammalian development. Cell 1998;94:727-37
Li P, Nijhawan D, Budihardjo I, Srinivasula SM, Ahmad M, Alnemri ES, Wang X. Cytochrome c and dATP-dependent formation of Apaf1/caspase-9 complex initiates an apoptotic protease cascade. Cell 1997;91:479-89
Hu Y, Benedict MA, Wu D, Inohara N, Nunez G. Bcl-XL interacts with Apaf1 and inhibits Apaf1-dependent caspase-9 activation. Proc Natl Acad Sci USA 1998;95:4386-91 (WD1299)

Images



Western blot analysis of Apaf1 in human heart tissue lysate with Apaf1 antibody at 1 µg/mL dilution in the absence (A) or presence (B) of blocking peptide.



Immunohistochemistry of Apaf1 in human skin tissue with Apaf1 antibody at 20 µg/mL.

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