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Apaf1 Antibody
Catalog # ASC10038

Specification

Apaf1 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	O14727
Other Accession	AAC51678, 2330015
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**115 - 130 kDa KDa**
Application Notes	**Apaf1 antibody can be used for detection of Apaf1 by Western blot at 1 µg/mL. A 115 - 130 kDa band should be detected. Antibody can also be used for immunohistochemistry starting at 1 µg/mL. For immunofluorescence start at 10 µg/mL.**

Apaf1 Antibody - 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.

Apaf1 Antibody - 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.

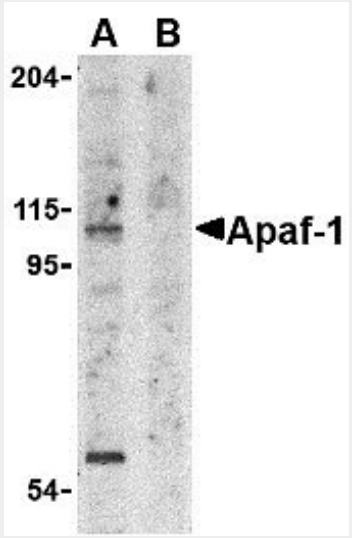
Tissue Location
Ubiquitous. Highest levels of expression in adult spleen and peripheral blood leukocytes, and in fetal brain, kidney and lung. Isoform 1 is expressed in heart, kidney and liver

Apaf1 Antibody - Protocols

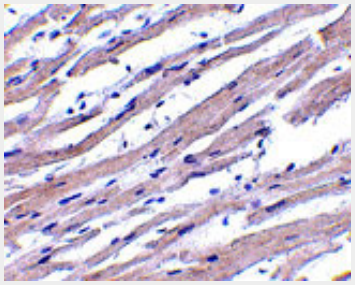
Provided below are standard protocols that you may find useful for product applications.

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

Apaf1 Antibody - Images



Western blot analysis of Apaf1 in K562 cell lysate with Apaf1 antibody at 1 µg/mL in the (A) absence and (B) presence of blocking peptide.



Immunohistochemistry of Apaf1 in human heart tissue with Apaf1 antibody at 1 µg/mL.

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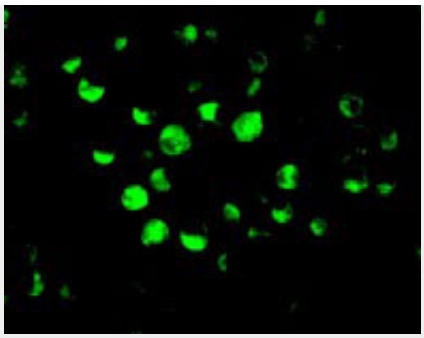

Immunofluorescence of Apaf1 in K562 cells with Apaf1 antibody at 10 µg/mL.

Apaf1 Antibody - 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 homologues of the key cell death gene CED-4 in C. elegans has been identified recently from human and mouse and designated Apaf1 (for apoptosis protease-activating factor 1). Apaf1 binds to cytochrome c (Apaf-2) and caspase-9 (Apaf-3), 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 is ubiquitously expressed in human tissues.

Apaf1 Antibody - 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 ofApaf1/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 (RD1299)