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Apaf-1 Antibody [5E11]

Catalog # ASC11971

Product Information

Application	E, IHC-P
Primary Accession	O14727
Other Accession	AAC51678, 2330015
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	5E11
Calculated MW	141840
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Apaf1 antibody can be used for detection of Apaf1 by immunohistochemistry at 0.5 mg/mL. Apaf1 has not been confirmed for use in Western Blot.

Additional Information

Gene ID	317
Other Names	Apoptotic protease-activating factor 1, APAF-1, APAF1, KIAA0413
Target/Specificity	APAF1;
Reconstitution & Storage	Apaf-1 monoclonal antibody can be stored at -20°C, stable for one year.
Precautions	Apaf-1 Antibody [5E11] 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

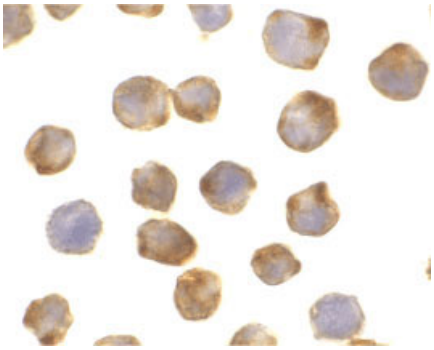
Background

Apaf-1 Monoclonal 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, et al. Apaf-1, 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, et al. Apaf1 (CED-4 homolog) regulates programmed cell death in mammalian development. Cell 1998; 94:727-37.
Li P, Nijhawan D, Budihardjo I, et al. Cytochrome c and dATP-dependent formation of Apaf-1/caspase-9 complex initiates an apoptotic protease cascade. Cell 1997; 91:479-89.
Hu Y, Benedict MA, Wu D, et al. Bcl-XL interacts with Apaf-1 and inhibits Apaf-1-dependent caspase-9 activation. Proc. Natl. Acad. Sci. USA 1998; 95:4386-91.

Images



Immunohistochemistry of Apaf1 in K562 cells with Apaf1 antibody at 0.5 µg/mL.