

Apaf-1 Antibody [5E11]

Catalog # ASC11971

Specification

Apaf-1 Antibody [5E11] - Product Information

Application IHC-P, E
Primary Accession 014727

Other Accession
Reactivity
Human, Mouse, Rat

Host Mouse Clonality Monoclonal

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.

Apaf-1 Antibody [5E11] - Additional Information

Gene ID 317

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.

Apaf-1 Antibody [5E11] - 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

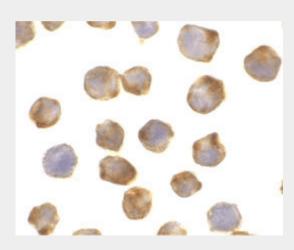


Apaf-1 Antibody [5E11] - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Apaf-1 Antibody [5E11] - Images



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

Apaf-1 Antibody [5E11] - 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.

Apaf-1 Antibody [5E11] - 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.