

Product Information



Apaf-1 Polyclonal Antibody

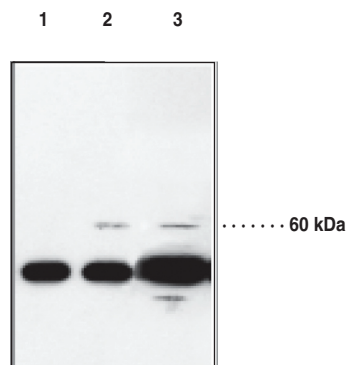
Catalog No. 160780

- Contents:** This vial contains 100 µg of peptide affinity-purified IgG in 200 µl PBS containing 0.02% azide.
- Synonym:** Apoptosis Protease-Activating Factor 1
- Host:** Rabbit
- Antigen:** The anti-Apaf-1 polyclonal antibody was raised against a peptide corresponding to amino acids 12 to 28 of human Apaf-1.¹ The sequences of the peptide are identical between human and mouse.^{1,2}
- Cross reactivity:** Human and murine Apaf-1
- Application:** This polyclonal antibody can be used for detection of Apaf-1 by Western blot at a dilution of 1:1000 to 1:2000. A whole cell lysate from HeLa cells can be used as a positive control and a 130 kDa band should be detected.
- Stability:** ≥1 one year at 4°C

Apoptosis is related to many diseases and is 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 Apaf-1 (apoptosis protease-activating factor 1).^{1,2} Apaf-1 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, one of the key proteases responsible for the proteolytic cleavage of many key proteins in apoptosis.³ Apaf-1 can also associate with caspase-4 and caspase-8.⁴ Apaf-1 is ubiquitously expressed in human tissues.¹

References

1. Zou, H., Henzel, W.J., 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* **90**, 405-413 (1997).
2. Cecconi, F., Alvarez-Bolado, G., Meyer, B.I., *et al.* Apaf1 (CED-4 homolog) regulates programmed cell death in mammalian development. *Cell* **94**, 727-737 (1998).
3. 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* **91**, 479-489 (1997).
4. Hu, Y., Benedict, M.A., Wu, D., *et al.* Bcl-XL interacts with Apaf-1 and inhibits Apaf-1-dependent caspase-9 activation. *Proc. Natl. Acad. Sci USA* **95**, 4386-4391 (1998).



Lane 1: 293 T-cell lysate
Lane 2: Apaf-1 transfected 293 T-cell lysate
Lane 3: HeLa cell lysate (50 µg)

Related Product

Caspase-9 Polyclonal Antibody - Cat. No. 160790

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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