

Datasheet for ABIN968496

anti-APAF1 antibody (AA 252-445)**2** Images**5** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	APAF1
Binding Specificity:	AA 252-445
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This APAF1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human Apaf-1 aa. 252-445
Clone:	24-Apaf
Isotype:	IgG1
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	APAF1
Alternative Name:	Apaf-1 (APAF1 Products)
Background:	The process of apoptosis requires the activation of aspartate-specific cysteine proteases in the caspase family. Group I caspases (1,4,5) cleave at (W/L)EHD tetrapeptide motifs, while group II caspases (2,3,7) cleave the DEXD tetrapeptide motif. Group III caspases (6,8,9) are activators of other caspases via cleavage of (I/V)EXD tetrapeptide sequences. Apoptotic protease-activating factor-1 (Apaf-1), cytochrome c, and dATP activate caspase-9, which in turn, initiates the post-mitochondrial-mediated caspase cascade that includes caspase-2, 3, 6, 7, 8 and 10. Apaf-1 is a soluble protein with a short N-terminal caspase recruitment domain (CARD), a central CED-4 homology domain, and 12 WD-40 repeats that may be involved in protein-protein interactions. During apoptosis, a large (700 kDa) aposome complex containing Apaf-1, cytochrome c, caspase-3, 7, and 9, and a smaller (200-300 kDa) microaposome complex containing caspase-3 and 7 exhibit higher cleavage activity than free caspase heterotetramers. Thus Apaf-1 is a component of the large aposome complex, which functions in caspase activation leading to caspase-dependent proteolytic events and apoptosis. This antibody is routinely tested by western blot analysis. Synonyms: Apoptotic Protease Activating Factor-1
Molecular Weight:	130 kDa
Pathways:	p53 Signaling , Apoptosis , Caspase Cascade in Apoptosis , Tube Formation , Positive Regulation of Endopeptidase Activity

Application Details

Comment:	Related Products: ABIN968536, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

Publications

Product cited in: Li, Trudel, Wogan: "Nitric oxide-induced genotoxicity, mitochondrial damage, and apoptosis in human lymphoblastoid cells expressing wild-type and mutant p53." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 99, Issue 16, pp. 10364-9, (2002) ([PubMed](#)).

Cain, Brown, Langlais, Cohen: "Caspase activation involves the formation of the aposome, a large (approximately 700 kDa) caspase-activating complex." in: **The Journal of biological chemistry**, Vol. 274, Issue 32, pp. 22686-92, (1999) ([PubMed](#)).

Hu, Benedict, Ding, Núñez: "Role of cytochrome c and dATP/ATP hydrolysis in Apaf-1-mediated caspase-9 activation and apoptosis." in: **The EMBO journal**, Vol. 18, Issue 13, pp. 3586-95, (1999) ([PubMed](#)).

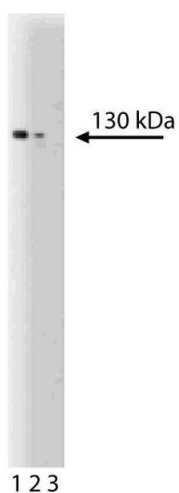
Soengas, Alarcón, Yoshida, Giaccia, Hakem, Mak, Lowe: "Apaf-1 and caspase-9 in p53-dependent apoptosis and tumor inhibition." in: **Science (New York, N.Y.)**, Vol. 284, Issue 5411, pp. 156-9, (1999) ([PubMed](#)).

Slee, Harte, Kluck, Wolf, Casiano, Newmeyer, Wang, Reed, Nicholson, Alnemri, Green, Martin: "Ordering the cytochrome c-initiated caspase cascade: hierarchical activation of caspases-2, -3, -6, -7, -8, and -10 in a caspase-9-dependent manner." in: **The Journal of cell biology**, Vol. 144, Issue 2, pp. 281-92, (1999) ([PubMed](#)).



Immunofluorescence

Image 1. Immunofluorescence staining of WI-38 cells (Human lung fibroblasts, ATCC CCL-75).



Western Blotting

Image 2. Western blot analysis of Apaf-1 on a human endothelial cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti- Apaf-1 antibody.