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# XIAP Antibody

Catalog # ASC10248

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | P98170 |
| **Other Accession** | NP_001158, 32528299 |
| **Reactivity** | Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 56685 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | XIAP antibody can be used for the detection of XIAP by Western blot at 0.5 to 2 □g/mL. Antibody can also be used for immunohistochemistry starting at 2 □g/mL. For immunofluorescence start at 10 □g/mL. |

## Additional Information

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| **Gene ID** | 331 |
| **Other Names** | XIAP Antibody: API3, ILP1, MIHA, XLP2, BIRC4, IAP-3, hIAP3, hIAP-3, API3, IAP3, E3 ubiquitin-protein ligase XIAP, Baculoviral IAP repeat-containing protein 4, ILP, X-linked inhibitor of apoptosis |
| **Target/Specificity** | XIAP; |
| **Reconstitution & Storage** | XIAP 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** | XIAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **Name** | XIAP {ECO:0000303\|PubMed:12121969, ECO:0000312\|HGNC:HGNC:592} |
| **Function** | Multi-functional protein which regulates not only caspases and apoptosis, but also modulates inflammatory signaling and immunity, copper homeostasis, mitogenic kinase signaling, cell proliferation, as well as cell invasion and metastasis (PubMed:11257230, PubMed:11257231, PubMed:11447297, PubMed:12121969, PubMed:12620238, PubMed:17560374, PubMed:17967870, PubMed:19473982, PubMed:20154138, PubMed:22103349, PubMed:9230442). Acts as a direct caspase inhibitor (PubMed:11257230, PubMed:11257231, PubMed:12620238). |

Directly bind to the active site pocket of CASP3 and CASP7 and obstructs substrate entry (PubMed:11257230, PubMed:11257231, PubMed:16352606, PubMed:16916640). Inactivates CASP9 by keeping it in a monomeric, inactive state (PubMed:12620238). Acts as an E3 ubiquitin-protein ligase regulating NF-kappa-B signaling and the target proteins for its E3 ubiquitin- protein ligase activity include: RIPK1, RIPK2, MAP3K2/MEKK2, DIABLO/SMAC, AIFM1, CCS, PTEN and BIRC5/survivin (PubMed:17560374, PubMed:17967870, PubMed:19473982, PubMed:20154138, PubMed:22103349, PubMed:22607974, PubMed:29452636, PubMed:30026309). Acts as an important regulator of innate immunity by mediating 'Lys-63'-linked polyubiquitination of RIPK2 downstream of NOD1 and NOD2, thereby transforming RIPK2 into a scaffolding protein for downstream effectors, ultimately leading to activation of the NF-kappa-B and MAP kinases signaling (PubMed:19667203, PubMed:22607974, PubMed:29452636, PubMed:30026309). 'Lys-63'-linked polyubiquitination of RIPK2 also promotes recruitment of the LUBAC complex to RIPK2 (PubMed:22607974, PubMed:29452636). Regulates the BMP signaling pathway and the SMAD and MAP3K7/TAK1 dependent pathways leading to NF-kappa-B and JNK activation (PubMed:17560374). Ubiquitination of CCS leads to enhancement of its chaperone activity toward its physiologic target, SOD1, rather than proteasomal degradation (PubMed:20154138). Ubiquitination of MAP3K2/MEKK2 and AIFM1 does not lead to proteasomal degradation (PubMed:17967870, PubMed:22103349). Plays a role in copper homeostasis by ubiquitinating COMMD1 and promoting its proteasomal degradation (PubMed:14685266). Can also function as E3 ubiquitin-protein ligase of the NEDD8 conjugation pathway, targeting effector caspases for neddylation and inactivation (PubMed:21145488). Ubiquitinates and therefore mediates the proteasomal degradation of BCL2 in response to apoptosis (PubMed:29020630). Protects cells from spontaneous formation of the ripoptosome, a large multi-protein complex that has the capability to kill cancer cells in a caspase-dependent and caspase- independent manner (PubMed:22095281). Suppresses ripoptosome formation by ubiquitinating RIPK1 and CASP8 (PubMed:22095281). Acts as a positive regulator of Wnt signaling and ubiquitinates TLE1, TLE2, TLE3, TLE4 and AES (PubMed:22304967). Ubiquitination of TLE3 results in inhibition of its interaction with TCF7L2/TCF4 thereby allowing efficient recruitment and binding of the transcriptional coactivator beta-catenin to TCF7L2/TCF4 that is required to initiate a Wnt-specific transcriptional program (PubMed:22304967).

**Cellular Location**

Cytoplasm. Nucleus. Note=TLE3 promotes its nuclear localization.

**Tissue Location**

Expressed in colonic crypts (at protein level) (PubMed:30389919). Ubiquitous, except peripheral blood leukocytes (PubMed:8654366).

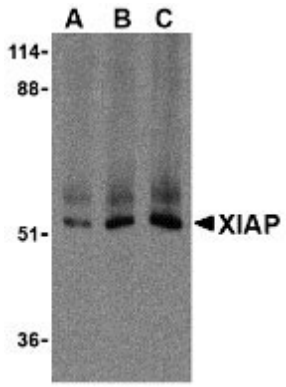
## Background

XIAP Antibody: Apoptosis, or programmed cell death, is related to many diseases, such as cancer. Apoptosis is triggered by a variety of stimuli including members in the TNF family and can be prevented by the inhibitor of apoptosis (IAP) proteins. IAP proteins form a conserved gene family that binds to and inhibits cell death proteases. The X-chromosome linked inhibitor of apoptosis (XIAP) contains 3 baculoviral IAP repeat (BIR) motifs that are essential and sufficient for the binding and inhibition of caspases-3, -7, and -9. Upregulation of XIAP expression can protect cells from apoptosis induced by low level radiation; conversely, decreased XIAP expression by antisense targeting resulted in increased cell death following low level radiation. Two negative regulators, termed XAF-1 and Smac, can bind and inhibit XIAP activity.

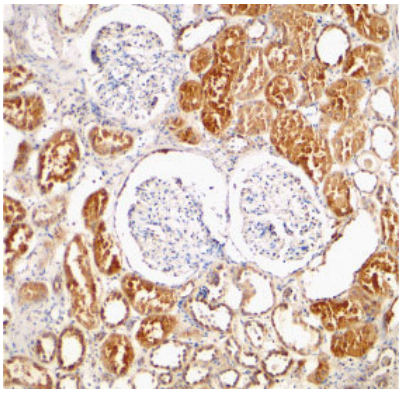
## References

Schimmer AD. Inhibitor of apoptosis proteins: translating basic knowledge into clinical practice. Cancer Res. 2004; 64:7183-90.
Deveraux QL, Takahashi R, Savesan GS, et al. X-linked IAP is a direct inhibitor of cell-death proteases. Nature 1997; 388:300-4.
Deveraux QL, Leo E, Stennicke HR, et al. Cleavage of human inhibitor of apoptosis protein XIAP results in fragments with distinct specificities for caspases. EMBO J. 1999; 18:5242-51.
Holcik M, Yeh C, Korneluk RG, et al. Translational upregulation of X-linked inhibitor of apoptosis (XIAP) increases resistance to radiation induced cell death. Oncogene 2000; 19:4174-7.

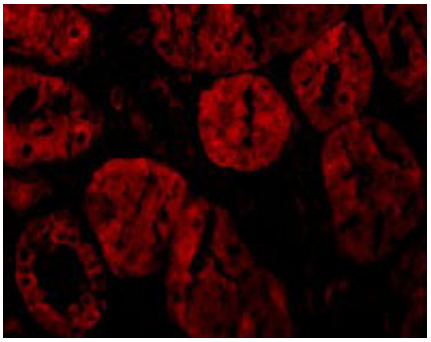
## Images




Western blot analysis of XIAP in human kidney lysate with XIAP antibody at (A) 0.5, (B) 1 , and (C) 2 µg/mL, respectively.



Immunohistochemical staining of human kidney tissue using XIAP antibody at 2 µg/mL.



Immunofluorescence of XIAP in Human Kidney tissue with XIAP antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.