10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

XIAP Rabbit pAb

Catalog # AP53644

Product Information

Primary Accession	Q60989
Host	Rabbit
Clonality	Polyclonal Antibody
Calculated MW	56079

Additional Information

Gene ID	11798
Other Names	API3; ILP1; MIHA; XLP2; BIRC4; IAP-3; hIAP3; hIAP-3
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	Xiap {ECO:0000303|PubMed:18761086, ECO:0000312|MGI:MGI:107572}
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 (By similarity). Acts as a direct caspase inhibitor (By similarity). Directly bind to the active site pocket of CASP3 and CASP7 and obstructs substrate entry (By similarity). Inhibits apoptosis in intestinal crypt cells, its activity is mitigated via its interaction with SEPTIN4 isoform ARTS (PubMed:30389919). Inactivates CASP9 by keeping it in a monomeric, inactive state (By similarity). 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:18761086, PubMed:19473982). 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:29452636). 'Lys-63'-linked polyubiquitination of RIPK2 also promotes recruitment of the LUBAC complex to RIPK2 (By similarity). Regulates the BMP signaling pathway and the SMAD and MAP3K7/TAK1 dependent pathways leading to NF-kappa-B and JNK activation (By similarity). Ubiquitination of CCS leads to enhancement of its chaperone activity toward its physiologic target, SOD1, rather than proteasomal degradation (By similarity). Ubiquitination of MAP3K2/MEKK2 and AIFM1 does not lead to proteasomal degradation (By similarity). Plays a role in copper homeostasis by ubiquitinating COMMD1 and promoting its proteasomal degradation (By

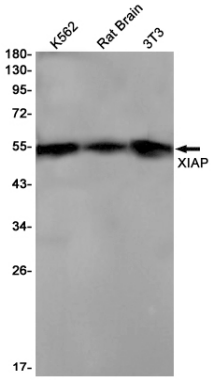
	similarity). Can also function as E3 ubiquitin-protein ligase of the NEDD8 conjugation pathway, targeting effector caspases for neddylation and inactivation (By similarity). Ubiquitinates and therefore mediates the proteasomal degradation of BCL2 in response to apoptosis (By similarity). Protects cells 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 (By similarity). Suppresses ripoptosome formation by ubiquitinating RIPK1 and CASP8 (By similarity). Acts as a positive regulator of Wnt signaling and ubiquitinates TLE1, TLE2, TLE3, TLE4 and AES (By similarity). 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 (By similarity). Positive regulator of dermal wound repair, potentially via its interaction with SEPTIN4 (PubMed:23788729).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P98170}. Nucleus {ECO:0000250|UniProtKB:P98170}. Note=TLE3 promotes its nuclear localization. {ECO:0000250|UniProtKB:P98170}
Tissue Location	Expressed in small intestine crypts (at protein level) (PubMed:30389919). Expressed in bulge hair follicle stem cells, sebaceous glands and dermal papillae (at protein level) (PubMed:23788729).

Background

Swiss-Prot Acc.Q60989.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. Acts as a direct caspase inhibitor. Directly bind to the active site pocket of CASP3 and CASP7 and obstructs substrate entry. Inactivates CASP9 by keeping it in a monomeric, inactive state. 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, CASP3, CASP7, CASP8, CASP9, MAP3K2/MEKK2, DIABLO/SMAC, AIFM1, CCS and BIRC5/survivin. Ubiquitinion of CCS leads to enhancement of its chaperone activity toward its physiologic target, SOD1, rather than proteasomal degradation. Ubiquitinion of MAP3K2/MEKK2 and AIFM1 does not lead to proteasomal degradation. Plays a role in copper homeostasis by ubiquitinationg COMMD1 and promoting its proteasomal degradation. Can also function as E3 ubiquitin-protein ligase of the NEDD8 conjugation pathway, targeting effector caspases for neddylation and inactivation. Regulates the BMP signaling pathway and the SMAD and MAP3K7/TAK1 dependent pathways leading to NF-kappa-B and JNK activation. Acts as an important regulator of innate immune signaling via regulation of Nodlike receptors (NLRs). 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. Suppresses ripoptosome formation by ubiquitinating RIPK1 and CASP8. Acts as a positive regulator of Wnt signaling and ubiquitinates TLE1, TLE2, TLE3, TLE4 and AES. 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.

Images

Western blot detection of XIAP in K562,Rat Brain,3T3 cell lysates using XIAP Rabbit pAb(1:1000 diluted).Predicted band size:57kDa.Observed band size:53kDa.



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