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XIAP (BIRC4) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6125a

Product Information

Application	WB, IHC-P, E
Primary Accession	P98170
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB01793
Calculated MW	56685
Antigen Region	1-30

Additional Information

Gene ID	331
Other Names	E3 ubiquitin-protein ligase XIAP, 632-, Baculoviral IAP repeat-containing protein 4, IAP-like protein, ILP, hILP, Inhibitor of apoptosis protein 3, IAP-3, hIAP-3, hIAP3, X-linked inhibitor of apoptosis protein, X-linked IAP, XIAP, API3, BIRC4, IAP3
Target/Specificity	This XIAP (BIRC4) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human XIAP (BIRC4).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	XIAP (BIRC4) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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).

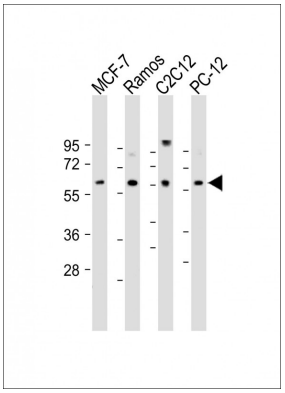
Background

BIRC4 is a member of a family of proteins which inhibit apoptosis through binding to tumor necrosis factor receptor-associated factors TRAF1 and TRAF2. Similar to API1, BIRC4 inhibits apoptosis induced by menadione, a potent inducer of free radicals, and ICE. BIRC4 also inhibits at least two members of the caspase family of cell-death proteases, caspase-3 and caspase-7.

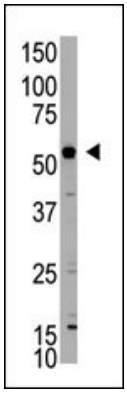
References

Srinivasula, S.M., et al., J. Biol. Chem. 278(34):31469-31472 (2003). Miranda, M.B., et al., Leukemia 17(2):390-400 (2003). Ahn, S.K., et al., Int. J. Mol. Med. 12(2):231-236 (2003). Yu, L.Y., et al., Mol. Cell. Neurosci. 22(3):308-318 (2003). Nomura, T., et al., Urol. Res. 31(1):37-44 (2003).

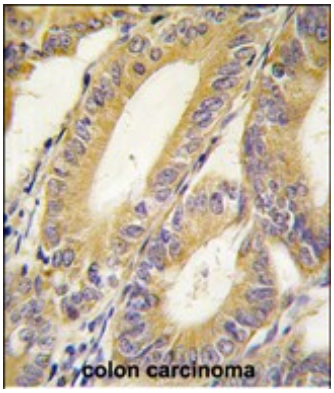
Images



All lanes : Anti-hBIRC4-C12 at 1:2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: Ramos whole cell lysate Lane 3: C2C12 whole cell lysate Lane 4: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



The anti-BIRC4 (N-term) Pab (Cat. #AP6125a) is used in Western blot to detect BIRC4 in mouse liver tissue lysate.



Formalin-fixed and paraffin-embedded human colon carcinoma tissue reacted with BIRC4 antibody (N-term) (Cat.#AP6125a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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