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

BIRC7 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6128a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q96CA5
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1799-1800
Calculated MW	32798
Antigen Region	271-298

Additional Information

Gene ID	79444
Other Names	Baculoviral IAP repeat-containing protein 7, 632-, Kidney inhibitor of apoptosis protein, KIAP, Livin, Melanoma inhibitor of apoptosis protein, ML-IAP, RING finger protein 50, Baculoviral IAP repeat-containing protein 7 30kDa subunit, Truncated livin, p30-Livin, tLivin, BIRC7, KIAP, LIVIN, MLIAP, RNF50
Target/Specificity	This BIRC7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 271-298 amino acids from the C-terminal region of human BIRC7.
Dilution	IHC-P~~1:100~500 WB~~1:1000 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	BIRC7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BIRC7
Synonyms	KIAP, LIVIN, MLIAP, RNF50

Function	Apoptotic regulator capable of exerting proapoptotic and anti-apoptotic activities and plays crucial roles in apoptosis, cell proliferation, and cell cycle control (PubMed:11024045, PubMed:11084335, PubMed:11162435, PubMed:16729033, PubMed:17294084). Its anti-apoptotic activity is mediated through the inhibition of CASP3, CASP7 and CASP9, as well as by its E3 ubiquitin-protein ligase activity (PubMed:11024045, PubMed:16729033). As it is a weak caspase inhibitor, its anti-apoptotic activity is thought to be due to its ability to ubiquitinate DIABLO/SMAC targeting it for degradation thereby promoting cell survival (PubMed:16729033). May contribute to caspase inhibition, by blocking the ability of DIABLO/SMAC to disrupt XIAP/BIRC4-caspase interactions (PubMed:16729033). Protects against apoptosis induced by TNF or by chemical agents such as adriamycin, etoposide or staurosporine (PubMed:11084335, PubMed:11162435, PubMed:11865055). Suppression of apoptosis is mediated by activation of MAPK8/JNK1, and possibly also of MAPK9/JNK2 (PubMed:11865055). This activation depends on TAB1 and MAP3K7/TAK1 (PubMed:11865055). In vitro, inhibits CASP3 and proteolytic activation of pro-CASP9 (PubMed:11024045).
Cellular Location	Nucleus. Cytoplasm. Golgi apparatus. Note=Nuclear, and in a filamentous pattern throughout the cytoplasm. Full-length livin is detected exclusively in the cytoplasm, whereas the truncated form (tLivin) is found in the peri-nuclear region with marked localization to the Golgi apparatus; the accumulation of tLivin in the nucleus shows positive correlation with the increase in apoptosis
Tissue Location	Isoform 1 and isoform 2 are expressed at very low levels or not detectable in most adult tissues. Detected in adult heart, placenta, lung, lymph node, spleen and ovary, and in several carcinoma cell lines. Isoform 2 is detected in fetal kidney, heart and spleen, and at lower levels in adult brain, skeletal muscle and peripheral blood leukocytes

Background

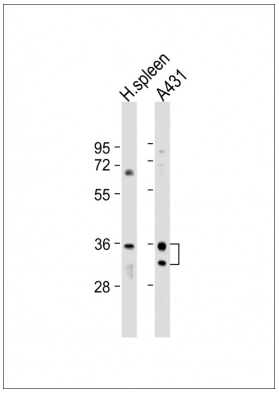
BIRC7 is a member of the family of inhibitor of apoptosis proteins (IAP) and contains a single copy of a baculovirus IAP repeat (BIR) as well as a RING-type zinc finger domain. The BIR domain is essential for inhibitory activity and interacts with caspases, while the RING finger domain sometimes enhances antiapoptotic activity but does not inhibit apoptosis alone. Two transcript variants encoding different isoforms have been found for this gene. The two isoforms have different antiapoptotic properties, with isoform alpha protecting cells from apoptosis induced by staurosporine and isoform b protecting cells from apoptosis induced by etoposide.

References

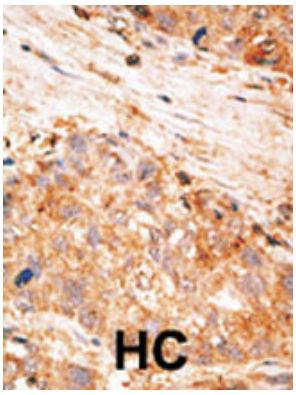
Clark, H.F., et al., Genome Res. 13(10):2265-2270 (2003).
Gazzaniga, P., et al., Ann. Oncol. 14(1):85-90 (2003).
Vucic, D., et al., J. Biol. Chem. 277(14):12275-12279 (2002).
Sanna, M.G., et al., Mol. Cell. Biol. 22(6):1754-1766 (2002).
Kasof, G.M., et al., J. Biol. Chem. 276(5):3238-3246 (2001).

Images

All lanes : Anti-BIRC7 Antibody (C267) at 1:1000 dilution Lane 1: human spleen whole cell lysate Lane 2: A431 lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution



buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.