

# Goat Anti-LIVIN / BIRC7 Antibody

Peptide-affinity purified goat antibody Catalog # AF1630a

## Specification

# Goat Anti-LIVIN / BIRC7 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Concentration Isotype Calculated MW

WB, E <u>Q96CA5</u> <u>NP\_071444</u>, <u>79444</u> Human Goat Polyclonal 100ug/200ul IgG 32798

# Goat Anti-LIVIN / BIRC7 Antibody - Additional Information

Gene ID 79444

**Other Names** 

Baculoviral IAP repeat-containing protein 7, 6.3.2.-, 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

Dilution WB~~1:1000 E~~N/A

Format

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** 

Goat Anti-LIVIN / BIRC7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Goat Anti-LIVIN / BIRC7 Antibody - 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:<a href="http://www.uniprot.org/citations/11024045" target="\_blank">11024045</a>, PubMed:<a href="http://www.uniprot.org/citations/11084335" target=" blank">11084335</a>, PubMed:<a href="http://www.uniprot.org/citations/11162435" target=" blank">11162435</a>, PubMed:<a href="http://www.uniprot.org/citations/16729033" target=" blank">16729033</a>, PubMed:<a href="http://www.uniprot.org/citations/17294084" target=" blank">17294084</a>). Its anti-apoptotic activity is mediated through the inhibition of CASP3, CASP7 and CASP9, as well as by its E3 ubiguitin-protein ligase activity (PubMed:<a href="http://www.uniprot.org/citations/11024045" target=" blank">11024045</a>, PubMed:<a href="http://www.uniprot.org/citations/16729033" target=" blank">16729033</a>). 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:<a href="http://www.uniprot.org/citations/16729033" target=" blank">16729033</a>). May contribute to caspase inhibition, by blocking the ability of DIABLO/SMAC to disrupt XIAP/BIRC4-caspase interactions (PubMed:<a href="http://www.uniprot.org/citations/16729033" target=" blank">16729033</a>). Protects against apoptosis induced by TNF or by chemical agents such as adriamycin, etoposide or staurosporine (PubMed: <a href="http://www.uniprot.org/citations/11084335" target=" blank">11084335</a>, PubMed:<a href="http://www.uniprot.org/citations/11162435" target=" blank">11162435</a>, PubMed:<a href="http://www.uniprot.org/citations/11865055" target=" blank">11865055</a>). Suppression of apoptosis is mediated by activation of MAPK8/JNK1, and possibly also of MAPK9/JNK2 (PubMed:<a href="http://www.uniprot.org/citations/11865055" target=" blank">11865055</a>). This activation depends on TAB1 and MAP3K7/TAK1 (PubMed:<a href="http://www.uniprot.org/citations/11865055" target=" blank">11865055</a>). In vitro, inhibits CASP3 and proteolytic activation of pro-CASP9 (PubMed: <a href="http://www.uniprot.org/citations/11024045" target=" blank">11024045</a>). **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

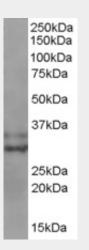
## Goat Anti-LIVIN / BIRC7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

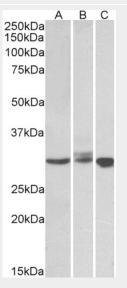
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## Goat Anti-LIVIN / BIRC7 Antibody - Images





AF1630a staining (0.3  $\mu$ g/ml) of MOLT4 lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1630a staining (0.5  $\mu$ g/ml) of Daudi (A), Jurkat (B) and K562 (C) lysates (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# Goat Anti-LIVIN / BIRC7 Antibody - Background

The protein encoded by this gene 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.

# Goat Anti-LIVIN / BIRC7 Antibody - References

Suppression of livin gene expression by siRNA leads to growth inhibition and apoptosis induction in human bladder cancer T24 cells. Yang D, et al. Biosci Biotechnol Biochem, 2010. PMID 20460713. Influence of Etoposide on anti-apoptotic and multidrug resistance-associated protein genes in CD133 positive U251 glioblastoma stem-like cells. Jin F, et al. Brain Res, 2010 Jun 8. PMID 20388502.

New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al.



Genes Immun, 2010 Apr. PMID 20237496.

Expression and prognostic significance of the apoptotic genes BCL2L13, Livin, and CASP8AP2 in childhood acute lymphoblastic leukemia. Yang YL, et al. Leuk Res, 2010 Jan. PMID 20109966. Expression of livin in gastric cancer and induction of apoptosis in SGC-7901 cells by shRNA-mediated silencing of livin gene. Wang TS, et al. Biomed Pharmacother, 2010 May. PMID 19914791.