

# BIRC7 / Livin Antibody (clone 88C570)

Mouse Monoclonal Antibody Catalog # ALS12065

# **Specification**

# BIRC7 / Livin Antibody (clone 88C570) - Product Information

Application WB, IHC
Primary Accession Q96CA5
Reactivity Human
Host Mouse
Clonality Monoclonal
Calculated MW 33kDa KDa

# BIRC7 / Livin Antibody (clone 88C570) - 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

### Target/Specificity

Fusion protein containing human Livin

### **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

### **Precautions**

BIRC7 / Livin Antibody (clone 88C570) is for research use only and not for use in diagnostic or therapeutic procedures.

# BIRC7 / Livin Antibody (clone 88C570) - 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/11162435" target="\_blank">11162435</a>, 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/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 ubiquitin-protein ligase activity (PubMed: <a href="http://www.uniprot.org/citations/11024045" tar

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/11162435" target=" blank">11162435</a>/a>, PubMed:<a

href="http://www.uniprot.org/citations/11162435" target="\_blank">11162435</a>, PubMed:<a href="http://www.uniprot.org/citations/11084335" target="\_blank">11084335</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

Volume 100 µl

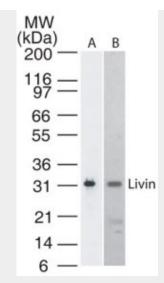
# BIRC7 / Livin Antibody (clone 88C570) - Protocols

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

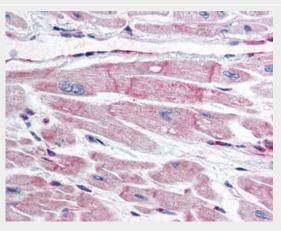
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# BIRC7 / Livin Antibody (clone 88C570) - Images





Western blot detection of Livin in A) Livin transfected cell lysate and B) U266 cell lysate.



Anti-BIRC7 / Livin antibody IHC of human heart.

# BIRC7 / Livin Antibody (clone 88C570) - Background

Apoptotic regulator capable of exerting proapoptotic and anti-apoptotic activities and plays crucial roles in apoptosis, cell proliferation, and cell cycle control. Its anti-apoptotic activity is mediated through the inhibition of CASP3, CASP7 and CASP9, as well as by its E3 ubiquitin-protein ligase activity. 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. May contribute to caspase inhibition, by blocking the ability of DIABLO/SMAC to disrupt XIAP/BIRC4-caspase interactions. Protects against apoptosis induced by TNF or by chemical agents such as adriamycin, etoposide or staurosporine. Suppression of apoptosis is mediated by activation of MAPK8/JNK1, and possibly also of MAPK9/JNK2. This activation depends on TAB1 and NR2C2/TAK1. In vitro, inhibits CASP3 and proteolytic activation of pro-CASP9. Isoform 1 blocks staurosporine-induced apoptosis. Isoform 2 blocks etoposide-induced apoptosis. Isoform 2 protects against natural killer (NK) cell killing whereas isoform 1 augments killing.

# BIRC7 / Livin Antibody (clone 88C570) - References

Lin J.-H., et al. Biochem. Biophys. Res. Commun. 279:820-831(2000). Ashhab Y., et al. FEBS Lett. 495:56-60(2001). Kasof G.M., et al. J. Biol. Chem. 276:3238-3246(2001). Clark H.F., et al. Genome Res. 13:2265-2270(2003). Deloukas P., et al. Nature 414:865-871(2001).



