

### **BIRC2 / cIAP1 Antibody**

Rabbit Polyclonal Antibody Catalog # ALS12064

### **Specification**

### **BIRC2 / cIAP1 Antibody - Product Information**

Application WB, IHC
Primary Accession O13490
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 70kDa KDa

## BIRC2 / cIAP1 Antibody - Additional Information

### Gene ID 329

#### **Other Names**

Baculoviral IAP repeat-containing protein 2, 6.3.2.-, C-IAP1, IAP homolog B, Inhibitor of apoptosis protein 2, IAP-2, hIAP-2, hIAP2, RING finger protein 48, TNFR2-TRAF-signaling complex protein 2, BIRC2, API1, IAP2, MIHB, RNF48

# **Target/Specificity**

A synthetic peptide corresponding to 361-372 of human c-IAP1 (Genbank# AAC50372).

### **Reconstitution & Storage**

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

### **Precautions**

BIRC2 / cIAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### BIRC2 / cIAP1 Antibody - Protein Information

#### Name BIRC2

Synonyms API1, MIHB, RNF48

### **Function**

Multi-functional protein which regulates not only caspases and apoptosis, but also modulates inflammatory signaling and immunity, mitogenic kinase signaling, and cell proliferation, as well as cell invasion and metastasis. Acts as an E3 ubiquitin-protein ligase regulating NF-kappa-B signaling and regulates both canonical and non- canonical NF-kappa-B signaling by acting in opposite directions: acts as a positive regulator of the canonical pathway and suppresses constitutive activation of non-canonical NF-kappa-B signaling. The target proteins for its E3 ubiquitin-protein ligase activity include: RIPK1, RIPK2, RIPK3, RIPK4, CASP3, CASP7, CASP8, TRAF2, DIABLO/SMAC, MAP3K14/NIK, MAP3K5/ASK1, IKBKG/NEMO, IKBKE and MXD1/MAD1. Can also function as an E3 ubiquitin-protein ligase of the NEDD8 conjugation pathway, targeting effector caspases for



Tel: 858.875.1900 Fax: 858.875.1999

neddylation and inactivation. Acts as an important regulator of innate immune signaling via regulation of Toll-like receptors (TLRs), Nodlike receptors (NLRs) and RIG-I like receptors (RLRs), collectively referred to as pattern recognition receptors (PRRs). 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. Can stimulate the transcriptional activity of E2F1. Plays a role in the modulation of the cell cycle.

### **Cellular Location**

Cytoplasm. Nucleus. Note=Agents that induce either the extrinsic or intrinsic apoptotic pathways promote its redistribution from the nuclear compartment to the cytoplasmic compartment. Associated with the midbody in telophase cells, and found diffusely in the nucleus of interphase cells

#### **Tissue Location**

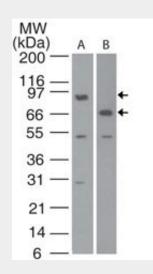
Present in many fetal and adult tissues. Mainly expressed in adult skeletal muscle, thymus, testis, ovary, and pancreas, low or absent in brain and peripheral blood leukocytes

## BIRC2 / cIAP1 Antibody - Protocols

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

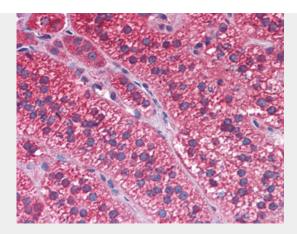
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### BIRC2 / cIAP1 Antibody - Images

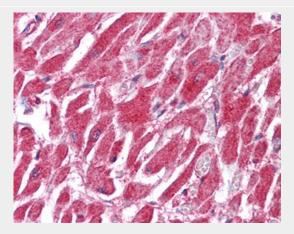


Western blot detection of c-IAP1 in human lung cell lysate. using antibody at 2 µg/ml dilution.

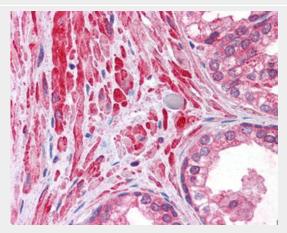




Anti-cIAP1 antibody IHC of human adrenal.

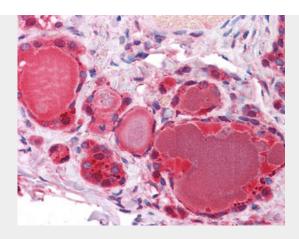


Anti-cIAP1 antibody IHC of human heart.



Anti-cIAP1 antibody IHC of human prostate.





Anti-cIAP1 antibody IHC of human thyroid.

# BIRC2 / cIAP1 Antibody - Background

Multi-functional protein which regulates not only caspases and apoptosis, but also modulates inflammatory signaling and immunity, mitogenic kinase signaling, and cell proliferation, as well as cell invasion and metastasis. Acts as an E3 ubiquitin- protein ligase regulating NF-kappa-B signaling and regulates both canonical and non-canonical NF-kappa-B signaling by acting in opposite directions: acts as a positive regulator of the canonical pathway and suppresses constitutive activation of non-canonical NF-kappa-B signaling. The target proteins for its E3 ubiquitin- protein ligase activity include: RIPK1, RIPK2, RIPK3, RIPK4, CASP3, CASP7, CASP8, TRAF2, DIABLO/SMAC, MAP3K14/NIK, MAP3K5/ASK1, IKBKG/NEMO, IKBKE and MXD1/MAD1. Can also function as an E3 ubiquitin-protein ligase of the NEDD8 conjugation pathway, targeting effector caspases for neddylation and inactivation. Acts as an important regulator of innate immune signaling via regulation of Toll-like receptors (TLRs), Nodlike receptors (NLRs) and RIG-I like receptors (RLRs), collectively referred to as pattern recognition receptors (PRRs). 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. Can stimulate the transcriptional activity of E2F1. Plays a role in the modulation of the cell cycle.

### **BIRC2 / cIAP1 Antibody - References**

Rothe M.,et al.Cell 83:1243-1252(1995). Liston P.,et al.Nature 379:349-353(1996). Uren A.G.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996). Ota T.,et al.Nat. Genet. 36:40-45(2004). Taylor T.D.,et al.Nature 440:497-500(2006).