

Anti-BIRC2 antibody



Description Unconjugated Rabbit polyclonal to BIRC2

Model STJ193113

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Gene ID 329

Gene Symbol BIRC2

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity BIRC2 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity 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.

Purification BIRC2 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Baculoviral IAP repeat-containing protein 2 Cellular inhibitor of apoptosis 1

C-IAP1 IAP homolog B Inhibitor of apoptosis protein 2 hIAP-2 hIAP2 RING

finger protein 48 RING-type E3 ubiquitin transferase BIRC

Molecular Weight 67 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:5900MIM:601712</u>

Alternative Names Baculoviral IAP repeat-containing protein 2 Cellular inhibitor of apoptosis 1

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finger protein 48 RING-type E3 ubiquitin transferase BIRC

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 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.

Sequence and Domain Family The BIR domains mediate nuclear localization. The CARD domain is

necessary to stabilize the protein and inhibit the activation of E3 ubiquitinprotein ligase activity of BIRC2/c-IAP1 by preventing RING domain

dimerization and E2 ubiquitin donor binding and activation.

Cytoplasm. Nucleus. 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.

Post-translational

Modifications

Auto-ubiquitinated and degraded by the proteasome in apoptotic cells.

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