

**Goat Anti-Survivin / BIRC5 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF2051a****Specification**

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**Goat Anti-Survivin / BIRC5 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">O15392</a>
Other Accession	<a href="#">NP_001012271</a> , <a href="#">332</a>
Reactivity	Human
Predicted	Pig, Dog, Cat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	16389

**Goat Anti-Survivin / BIRC5 Antibody - Additional Information****Gene ID** 332**Other Names**

Baculoviral IAP repeat-containing protein 5, Apoptosis inhibitor 4, Apoptosis inhibitor survivin, BIRC5, API4, IAP4

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg IgG/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-Survivin / BIRC5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Survivin / BIRC5 Antibody - Protein Information****Name** BIRC5**Synonyms** API4, IAP4

## Function

Multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis (PubMed:<a href="http://www.uniprot.org/citations/20627126" target="\_blank">20627126</a>, PubMed:<a href="http://www.uniprot.org/citations/21364656" target="\_blank">21364656</a>, PubMed:<a href="http://www.uniprot.org/citations/25778398" target="\_blank">25778398</a>, PubMed:<a href="http://www.uniprot.org/citations/28218735" target="\_blank">28218735</a>, PubMed:<a href="http://www.uniprot.org/citations/9859993" target="\_blank">9859993</a>). Component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis (PubMed:<a href="http://www.uniprot.org/citations/16322459" target="\_blank">16322459</a>). Acts as an important regulator of the localization of this complex; directs CPC movement to different locations from the inner centromere during prometaphase to midbody during cytokinesis and participates in the organization of the center spindle by associating with polymerized microtubules (PubMed:<a href="http://www.uniprot.org/citations/20826784" target="\_blank">20826784</a>). Involved in the recruitment of CPC to centromeres during early mitosis via association with histone H3 phosphorylated at 'Thr-3' (H3pT3) during mitosis (PubMed:<a href="http://www.uniprot.org/citations/20929775" target="\_blank">20929775</a>). The complex with RAN plays a role in mitotic spindle formation by serving as a physical scaffold to help deliver the RAN effector molecule TPX2 to microtubules (PubMed:<a href="http://www.uniprot.org/citations/18591255" target="\_blank">18591255</a>). May counteract a default induction of apoptosis in G2/M phase (PubMed:<a href="http://www.uniprot.org/citations/9859993" target="\_blank">9859993</a>). The acetylated form represses STAT3 transactivation of target gene promoters (PubMed:<a href="http://www.uniprot.org/citations/20826784" target="\_blank">20826784</a>). May play a role in neoplasia (PubMed:<a href="http://www.uniprot.org/citations/10626797" target="\_blank">10626797</a>). Inhibitor of CASP3 and CASP7 (PubMed:<a href="http://www.uniprot.org/citations/21536684" target="\_blank">21536684</a>). Essential for the maintenance of mitochondrial integrity and function (PubMed:<a href="http://www.uniprot.org/citations/25778398" target="\_blank">25778398</a>). Isoform 2 and isoform 3 do not appear to play vital roles in mitosis (PubMed:<a href="http://www.uniprot.org/citations/12773388" target="\_blank">12773388</a>, PubMed:<a href="http://www.uniprot.org/citations/16291752" target="\_blank">16291752</a>). Isoform 3 shows a marked reduction in its anti- apoptotic effects when compared with the displayed wild-type isoform (PubMed:<a href="http://www.uniprot.org/citations/10626797" target="\_blank">10626797</a>).

## Cellular Location

Cytoplasm. Nucleus. Chromosome Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore. Midbody. Note=Localizes at the centromeres from prophase to metaphase, at the spindle midzone during anaphase and at the midbody during telophase and cytokinesis. Accumulates in the nucleus upon treatment with leptomycin B (LMB), a XPO1/CRM1 nuclear export inhibitor (By similarity). Localizes on chromosome arms and inner centromeres from prophase through metaphase. Localizes to kinetochores in metaphase, distributes to the midzone microtubules in anaphase and at telophase, localizes exclusively to the midbody (PubMed:11084331) Colocalizes with AURKB at mitotic chromosomes (PubMed:14610074) Acetylation at Lys-129 directs its localization to the nucleus by enhancing homodimerization and thereby inhibiting XPO1/CRM1-mediated nuclear export (PubMed:20826784). {ECO:0000250|UniProtKB:E3SCZ8, ECO:0000269|PubMed:11084331, ECO:0000269|PubMed:14610074, ECO:0000269|PubMed:20826784}

## Tissue Location

Expressed only in fetal kidney and liver, and to lesser extent, lung and brain (PubMed:10626797). Abundantly expressed in adenocarcinoma (lung, pancreas, colon, breast, and prostate) and in high-grade lymphomas (PubMed:14741722, PubMed:16329164). Also expressed in various renal cell carcinoma cell lines (PubMed:10626797). Expressed in cochlea including the organ of Corti, the lateral wall, the interdental cells of the Limbus as well as in Schwann cells and cells of the cochlear nerve and the spiral ganglions (at protein level). Not expressed in cells of the inner and

outer sulcus or the Reissner's membrane (at protein level) (PubMed:20627126, PubMed:21364656)

### **Goat Anti-Survivin / BIRC5 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 Cytometry](#)
- [Cell Culture](#)

### **Goat Anti-Survivin / BIRC5 Antibody - Images**



AF2051a (0.01 µg/ml) staining of Molt-4 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### **Goat Anti-Survivin / BIRC5 Antibody - Background**

This gene is a member of the inhibitor of apoptosis (IAP) gene family, which encode negative regulatory proteins that prevent apoptotic cell death. IAP family members usually contain multiple baculovirus IAP repeat (BIR) domains, but this gene encodes proteins with only a single BIR domain. The encoded proteins also lack a C-terminus RING finger domain. Gene expression is high during fetal development and in most tumors yet low in adult tissues. Antisense transcripts are involved in the regulation of this gene's expression. At least four transcript variants encoding distinct isoforms have been found for this gene, but the full-length natures of only three of them have been determined.

### **Goat Anti-Survivin / BIRC5 Antibody - References**

Interaction of Beclin 1 with survivin regulates sensitivity of human glioma cells to TRAIL-induced apoptosis. Niu TK, et al. FEBS Lett, 2010 Aug 20. PMID 20638385.  
Blockade of Rac1 activity induces G(1) cell cycle arrest or apoptosis in breast cancer cells through downregulation of cyclin D1, survivin, and X-linked inhibitor of apoptosis protein. Yoshida T, et al. Mol Cancer Ther, 2010 Jun. PMID 20515940.  
Survivin downregulation by siRNA/cationic liposome complex radiosensitises human hepatoma cells in vitro and in vivo. Yang W, et al. Int J Radiat Biol, 2010 Jun. PMID 20470195.

A Large-scale genetic association study of esophageal adenocarcinoma risk. Liu CY, et al. Carcinogenesis, 2010 Jul. PMID 20453000.

Serum levels of HMGB1, survivin, and VEGF in patients with advanced non-small cell lung cancer during chemotherapy. Naumnik W, et al. Folia Histochem Cytobiol, 2009. PMID 20430742.