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Survivin Antibody

Catalog # ASC10092

Product Information

Application	WB, IF, ICC, E
Primary Accession	O15392
Other Accession	NP_001159, 59859878
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	16389
Conjugate	Unconjugated
Application Notes	Survivin antibody can be used for detection of survivin by Western blot at 1 μg/mL. An approximate 17 kDa band should be detected. Antibody can also be used for immunocytochemistry starting at 10 μg/mL. For immunofluorescence start at 10 μg/mL.

Additional Information

Gene ID	332
Other Names	Survivin Antibody: API4, EPR-1, API4, IAP4, Baculoviral IAP repeat-containing protein 5, Apoptosis inhibitor 4, baculoviral IAP repeat-containing 5
Target/Specificity	BIRC5;
Reconstitution & Storage	Survivin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Survivin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BIRC5
Synonyms	API4, IAP4
Function	Multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis (PubMed:20627126, PubMed:21364656, PubMed:25778398, PubMed:28218735, PubMed:9859993). Component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis (PubMed:16322459). 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:20826784). Involved in the recruitment of CPC to centromeres during early mitosis via association with histone H3 phosphorylated at 'Thr-3' (H3pT3) during mitosis (PubMed:20929775). 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:18591255). May counteract a default induction of apoptosis in G2/M phase (PubMed:9859993). The acetylated form represses STAT3 transactivation of target gene promoters (PubMed:20826784). May play a role in neoplasia (PubMed:10626797). Inhibitor of CASP3 and CASP7 (PubMed:21536684). Essential for the maintenance of mitochondrial integrity and function (PubMed:25778398). Isoform 2 and isoform 3 do not appear to play vital roles in mitosis (PubMed:12773388, PubMed:16291752). Isoform 3 shows a marked reduction in its anti- apoptotic effects when compared with the displayed wild-type isoform (PubMed:10626797).
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 a 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)

Background

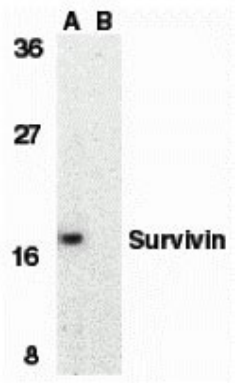
Survivin Antibody: Apoptosis, or programmed cell death, is related to many diseases, such as cancer. Apoptosis is triggered by a variety of stimuli including members in the TNF family and prevented by the inhibitor of apoptosis (IAP) proteins. IAP proteins form a conserved gene family that binds to and inhibits cell death proteases. A novel IAP protein was recently identified and designated survivin, apoptosis inhibitor 4 (API4), and TIAP. Survivin/TIAP interacted with the processed form of caspase-3 and inhibited its proteolytic activity. Survivin/TIAP is predominantly expressed in tissues of embryos, transformed cell lines, and many human cancers and lymphomas.

References

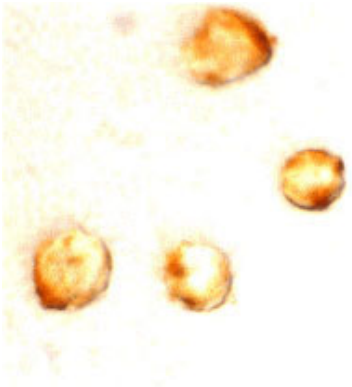
Ambrosini G, Adida C, Altieri DC. A novel anti-apoptosis gene, survivin, expressed in cancer and lymphoma. Nat Med 1997;3:917-21

Li F, Ambrosini G, Chu EY, Plescia J, Tognin S, Marchisio PC, Altieri DC. Control of apoptosis and mitotic spindle checkpoint by survivin. Nature 1998;396:580-4
Kobayashi K, Hatano M, Otaki M, Ogasawara T, Tokuhisa T. Expression of a murine homologue of the inhibitor of apoptosis protein is related to cell proliferation. Proc Natl Acad Sci USA 1999;96:1457-62
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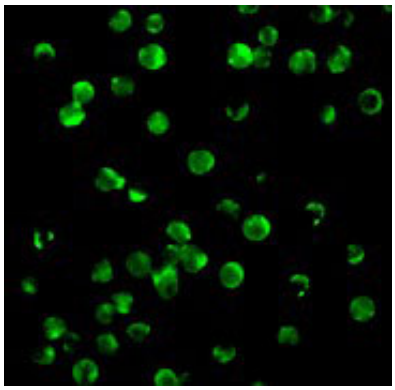
Images



Western blot analysis of survivin in MOLT4 cell lysate in the absence (A) or presence (B) of blocking peptide with survivin antibody at 1 µg/mL.



Immunocytochemistry staining of MOLT4 cells using survivin at 10 µg/mL.



Immunofluorescence of Survivin in Molt4 cells with Survivin antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.