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Survivin Recombinant Rabbit mAb

Catalog # AP96976

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O70201
Other Accession	O70201
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	16298
Physical State	Liquid
Immunogen	Recombinant mouse Survivin protein
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the IAP family. Contains 1 BIR repeat.
SUBUNIT	Monomer or homodimer. Exists as a homodimer in the apo state and as a monomer in the CPC-bound state. The monomer protects cells against apoptosis more efficiently than the dimer. Only the dimeric form is capable of enhancing tubulin stability in cells. When phosphorylated, interacts with HBXIP; the resulting complex binds pro-CASP9, as well as active CASP9, but much less efficiently. Component of the chromosomal passenger complex (CPC) composed of at least BIRC5/survivin, CDCA8/borealin, INCENP, AURKB and AURKC. Interacts with JTB. Interacts with CDCA8 and INCENP; interaction is direct. Interacts with EVI5. Interacts with GTP-bound RAN in both the S and M phases of the cell cycle. Interacts with USP9X. Interacts with tubulin. Interacts with BIRC2/c-IAP1. The acetylated form at Lys-129 interacts with STAT3. The monomeric form deacetylated at Lys-129 interacts with XPO1/CRM1. The monomeric form interacts with XIAP/BIRC4. Both the dimeric and monomeric form can interact with DIABLO/SMAC. Interacts with BIRC6/bruce. Subcellular Location : Cytoplasm. Nucleus. Chromosome. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore. Midbody. Note=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. Colocalizes with AURKB at mitotic chromosomes. Acetylation at Lys-129 directs its localization to the nucleus by enhancing homodimerization and thereby inhibiting XPO1/CRM1-mediated nuclear export.
Post-translational modifications	Ubiquitination is required for centrosomal targeting.In vitro phosphorylation at Thr-117 by AURKB prevents interaction with INCENP and localization to mitotic chromosomes. Phosphorylation at Thr-48 by CK2 is critical for its mitotic and anti-apoptotic activities. Acetylation at Lys-129 by CBP results in its homodimerization, while deacetylation promotes the formation of monomers which heterodimerize with XPO1/CRM1 which facilitates its nuclear export. The acetylated form represses STAT3 transactivation. The dynamic equilibrium between its acetylation and deacetylation at Lys-129 determines its interaction with XPO1/CRM1, its subsequent subcellular

	localization, and its ability to inhibit STAT3 transactivation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jun 2011]

Additional Information

Gene ID	11799
Other Names	API4; EPR-1; AAC-11; TIAP; survivin40; AP14; BIRC5_HUMAN; BIRC5; Apoptosis inhibitor 4; Apoptosis inhibitor survivin; IAP4; BIRC5_MOUSE; BIRC5_RAT; baculoviral IAP repeat containing 5; baculoviral IAP repeat-containing 5
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Birc5
Synonyms	Api4, Iap4
Function	Multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis (PubMed:25778398). Component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis (By similarity). 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 (By similarity). Involved in the recruitment of CPC to centromeres during early mitosis via association with histone H3 phosphorylated at 'Thr-3' (H3pT3) during mitosis (By similarity). 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 (By similarity). May counteract a default induction of apoptosis in G2/M phase (By similarity). The acetylated form represses STAT3 transactivation of target gene promoters (By similarity). May play a role in neoplasia. Inhibitor of CASP3 and CASP7 (By similarity). Essential for the maintenance of mitochondrial integrity and function (PubMed:25778398).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:O15392}. Nucleus {ECO:0000250|UniProtKB:O15392}. Chromosome {ECO:0000250|UniProtKB:O15392}. Chromosome, centromere {ECO:0000250|UniProtKB:O15392}. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:O15392}. Chromosome, centromere, kinetochore {ECO:0000250|UniProtKB:O15392}. Midbody

{ECO:0000250|UniProtKB:O15392} 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. Colocalizes with AURKB at mitotic chromosomes. Acetylation at Lys-129 directs its localization to the nucleus by enhancing homodimerization and thereby inhibiting XPO1/CRM1- mediated nuclear export (By similarity). {ECO:0000250|UniProtKB:E3SCZ8, ECO:0000250|UniProtKB:O15392}

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