

Survivin Polyclonal Antibody

Catalog Number **PA1-16836**

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Dog, Cat, Guinea pig, Hamster, Human, Mouse, Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Mouse, Human, Not Applicable
Class	Polyclonal	Tested Applications	Dilution *
Type	Antibody	ChIP assay (ChIP)	1:10-1:500
Immunogen	Recombinant human survivin, full-length.	ELISA (ELISA)	Assay-Dependent
Conjugate	Unconjugated	Flow Cytometry (Flow)	Assay-Dependent
Form	Liquid	Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent
Concentration	1 mg/mL	Immunohistochemistry (Paraffin) (IHC (P))	1:50-1:500
Purification	Antigen affinity chromatography	Immunoprecipitation (IP)	1:10-1:500
Storage buffer	PBS	Western Blot (WB)	1:1,000
Contains	0.02% sodium azide	Immunocytochemistry (ICC/IF)	1:50-1:250
Storage Conditions	-20°C or -80°C if preferred	Published Applications	
		Western Blot (WB)	See 1 publications below
		ELISA (ELISA)	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

For IHC, prior antigen retrieval (pressure cooking) is recommended for cytoplasmic and nuclear detection of Survivin. Suggested positive control: Hela whole cell extract, antigen standard for BIRC5 (transient overexpression lysate).

Background/Target Information

Survivin (IAP4) is the smallest member of the Inhibitors of Apoptosis Protein (IAP) gene family. The IAPs are involved in multiple cell functions such as cell signaling, cell division, metabolism, and exhibits differential expression in nearly all human cancers, but not in most normal tissues. IAP family members usually contain multiple baculovirus IAP repeat (BIR) domains, but the Survivin 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 survivin's gene expression. Survivin is expressed in the G2/M phase of the cell cycle in a cycle-regulated manner. At the beginning of mitosis, survivin associates with microtubules of the mitotic spindle in a specific and saturable reaction that is regulated by microtubule dynamics. Disruption of survivin-microtubule interactions results in loss of survivin's anti-apoptosis function and increased caspase-3 activity, a mechanism involved in cell death, during mitosis. Survivin may counteract a default induction of apoptosis in G2/M phase. Survivin is also abundantly expressed in brain tissues (astrocytes and some neurons) of adult rats following traumatic brain injury. Survivin has been found co-expressed with NeuN (mature neuronal marker) and PCNA (a cell cycle protein). Survivin might affect regulation of neural cell proliferative responses after brain injury. At least four transcript variants encoding distinct isoforms have been found for this gene, but the full-length nature of only three of them have been determined. The overexpression of survivin in cancer may overcome this apoptotic checkpoint and favor aberrant progression of transformed cells through mitosis.

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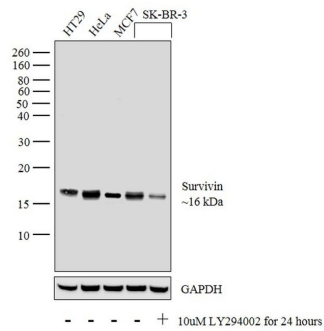
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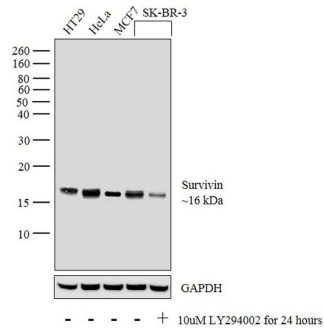
Survivin Antibody (PA1-16836) in WB

Western blot analysis was performed on whole cell extracts (30 µg lysate) of HT29 (Lane 1), HeLa (Lane 2), MCF7 (Lane 3), SK-BR-3 (Lane 4) and SK-BR-3 treated with LY294002 (10uM for 24 hours) (Lane 5). The blot was probed with Anti-Survivin Polyclonal Antibody (Product # PA1-16836, 1µg/mL dilution) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4000 dilution). A 17 kDa band corresponding to Survivin was observed in all the cell lines tested and was observed to reduce in SK-BR-3 cell line upon treatment with LY294002.



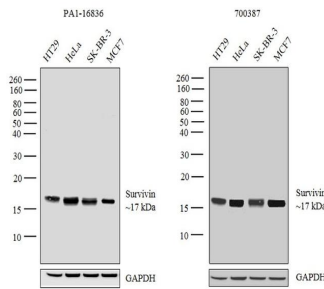
Survivin Antibody (PA1-16836)

Altered expression of target protein upon cell treatment demonstrates antibody specificity. Western blot analysis of Survivin using Survivin Polyclonal Antibody (Product # PA1-16836) shows a reduction in expression of Survivin in the SK-BR-3 cell line upon LY294002 treatment. {TM}



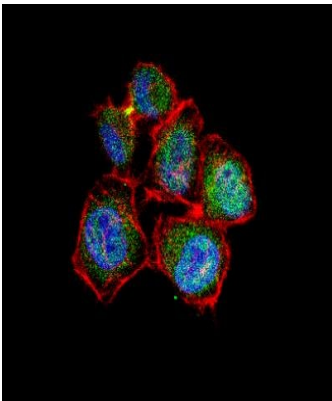
Survivin Antibody (PA1-16836)

Antibody specificity was demonstrated by showing that antibodies raised against the same target protein perform similarly. Western blot of Survivin using Survivin Polyclonal Antibody (Product # PA1-16836), tested in parallel with Survivin Antibody (9H18L32), Recombinant Rabbit Monoclonal (Product # 700387), shows similar expression of Survivin in the cell lines tested. {IAV}



Survivin Antibody (PA1-16836) in ICC/IF

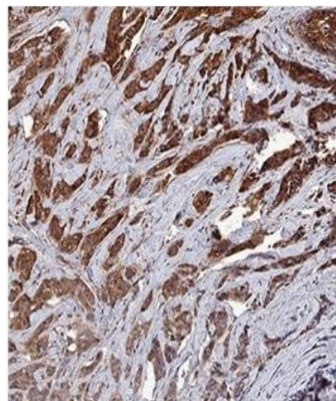
Immunocytochemistry analysis of Survivin in HeLa cells. Samples were incubated in Survivin polyclonal antibody (Product # PA1-16836) using a dilution of 1:10 followed by Alexa Fluor 488-conjugated Goat to rabbit IgG secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



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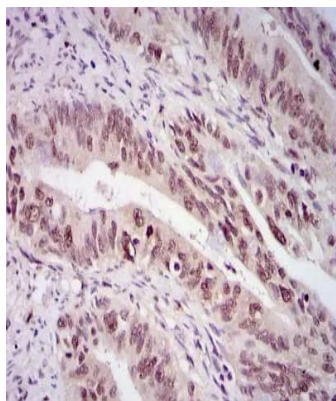
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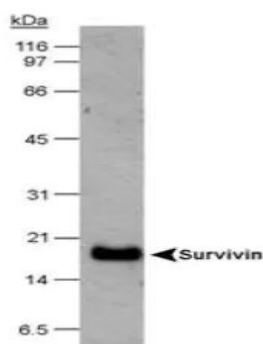
Survivin Antibody (PA1-16836) in IHC (P)

Immunohistochemical analysis of Survivin in lysates of human neuroblastoma cell line. Samples were incubated in Survivin polyclonal antibody (Product # PA1-16836) using a dilution of 1:200 followed by a goat anti-rabbit IgG at a dilution of 1:2000.



Survivin Antibody (PA1-16836) in IHC (P)

Immunohistochemical analysis of Survivin in human rectal cancer. Samples were incubated in Survivin polyclonal antibody (Product # PA1-16836) followed by DAB with hematoxylin counterstain.



Survivin Antibody (PA1-16836) in WB

Western blot analysis of Survivin in 30 µg HeLa whole cell lysate. Samples were incubated in Survivin polyclonal antibody (Product # PA1-16836) using a dilution of 1 µg/mL. Detection was performed using ECL method with 1 minute exposure. Band detected at higher molecular weight than the predicted MW (16 kDa).



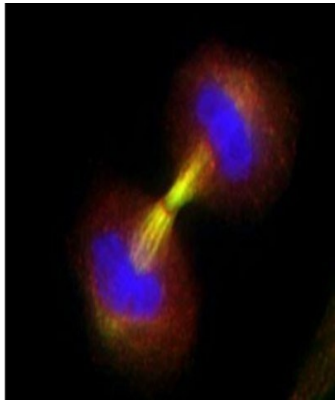
Survivin Antibody (PA1-16836) in WB

Western blot analysis of Survivin in 1.0 mg/mL HeLa lysate. Samples were incubated in Survivin polyclonal (Product # PA1-16836). This experiment was performed under reducing conditions using the 12-230 kDa separation system.

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Survivin Antibody (PA1-16836) in ICC/IF

Immunocytochemistry analysis of Survivin in Telophase with accumulation of survivin in the midbodies of two daughter cells. Samples were incubated in Survivin polyclonal antibody (Product # PA1-16836). Analysis using the HRP conjugate.

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PubMed References For Survivin Polyclonal Antibody

1 Western Blot References

Species / Dilution	Summary
	PA1-16836 was used in western blot to study the ability of NR4A1 to protect against neural damage induced by oxygen and glucose deprivation
Rat / Not Cited	Journal of the neurological sciences (2013; 330: 78) "NR4A1 enhances neural survival following oxygen and glucose deprivation: an in vitro study." Author(s):Xiao G,Sun T,Songming C,Cao Y PubMed Article URL: http://dx.doi.org/10.1016/j.jns.2013.04.010

1 ELISA References

Species / Dilution	Summary
	PA1-16836 was used in an ELISA assay to the increased survivin level is a feature of irreversible PAH and the serum survivin represents a candidate biomarker reflecting the operability of CHD-PAH patients.
Human / 1:400	Pulmonary circulation (2020; 9:) "The expression of survivin in irreversible pulmonary arterial hypertension rats and its value in evaluating the reversibility of pulmonary arterial hypertension secondary to congenital heart disease." Author(s):Li G,Zhang H,Zhao L,Zhang Y,Yan D,Liu Y,Su J,Fan X PubMed Article URL: http://dx.doi.org/10.1177/2045894019859480

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