

Survivin Polyclonal Antibody

Catalog NumberPA5-17520

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Tested Applications	Dilution *
Class	Polyclonal		
Type	Antibody		
Immunogen	Synthetic peptide corresponding to residues near the carboxyl terminus of human survivin	Immunoprecipitation (IP)	1:100
Conjugate	Unconjugated	Western Blot (WB)	1:1,000
Form	Liquid	* 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.	
Purification	Antigen affinity chromatography		
Storage buffer	0.01M HEPES, pH 7.5, with 0.15M NaCl, 100µg/mL BSA, 50% glycerol		
Contains	no preservative		
Storage Conditions	-20°C		

Product specific information

It is not recommended to aliquot this antibody. This antibody is not cross-reactive with other types of apoptotic inhibitor proteins at physiological conditions.

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 natures 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.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

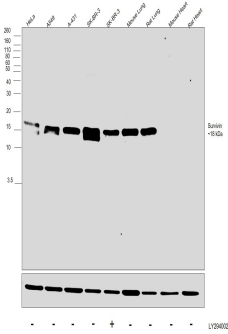
For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

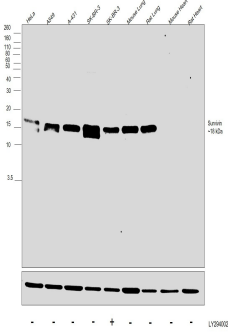
Survivin Antibody (PA5-17520) in WB

Western blot was performed using Anti-Survivin Polyclonal Antibody (Product # PA5-17520) and a 18 kDa band corresponding to Survivin was observed across the cell lines and tissues tested except in heart tissue. Whole cell extracts and tissue lysates (30 µg lysate) of HeLa (Lane 1), A549 (Lane 2), A-431 (Lane 3), SK-BR-3 (Lane 4), SK-BR-3 treated with LY294002 (10 µM for 24 hrs) (Lane 5), Mouse Lung (Lane 6), Rat Lung (Lane 7), Mouse Heart (Lane 8) and Rat Heart (Lane 9) were electrophoresed using Novex™ 16% Tricine Protein Gel (Product # EC6695BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1,000 dilution) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 0.25 µg/mL, 1:4,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



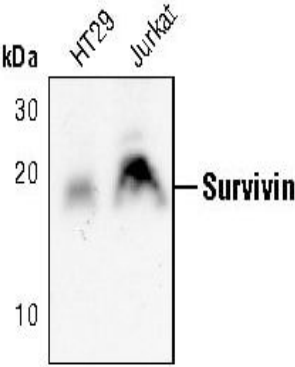
Survivin Antibody (PA5-17520)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using Anti-Survivin Polyclonal Antibody (Product # PA5-17520) shows high expression of Survivin in Mouse lung and Rat Lung when compared to Mouse heart and Rat Heart as reported. {RE}



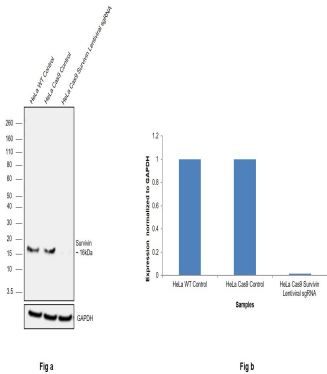
Survivin Antibody (PA5-17520) in WB

Western blot analysis of Survivin in extracts from HT29 and Jurkat cells using Survivin polyclonal antibody (Product # PA5-17520).



Survivin Antibody (PA5-17520)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in HeLa Cas9 cell line transduced with Survivin Lentiviral sgRNA compared to control cell line using Anti-Survivin Polyclonal Antibody (Product # PA5-17520). {KO}



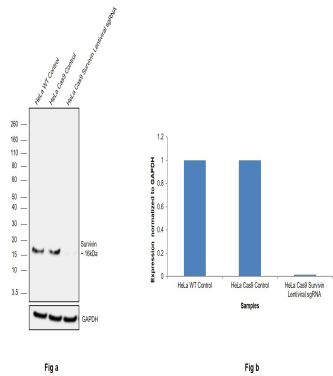
For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

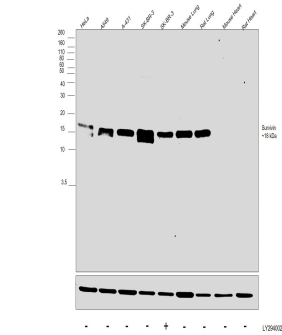
Survivin Antibody (PA5-17520) in WB

CRISPR-Cas9 mediated genome editing of Survivin (as confirmed by next generation sequencing) was achieved by using LentiArray™ Lentiviral sgRNA (Product # A32042, AssayID CRISPR711998_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Fig (a) Western blot analysis of Survivin was performed by loading 30 µg of HeLa Wild Type (Lane 1), HeLa Cas9 (Lane 2) and HeLa Cas9 cells transduced with Survivin Lentiviral sgRNA (Lane 3) whole cell extracts. The samples were electrophoresed using NuPAGE™ Novex™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with Anti-Survivin Polyclonal Antibody (Product # PA5-17520) using 1:1,000 dilution and Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036 1:5,000 dilution). Chemiluminescent detection was performed using SuperSignal™ West Dura Extended Duration Substrate (Product # 34076). Loss of signal in sgRNA transduced cells using the LentiArray™ CRISPR product line confirms that antibody is specific to Survivin (Fig (b)).



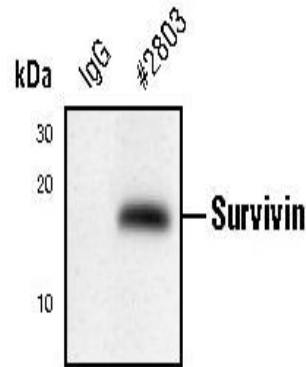
Survivin Antibody (PA5-17520)

Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot using Survivin Polyclonal Antibody (Product # PA5-17520), shows decreased expression of Survivin in SK-BR-3 upon LY294002 treatment. {TM}



Survivin Antibody (PA5-17520) in IP

Immunoprecipitation of Survivin using a polyclonal antibody (Product # PA5-17520).



For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.