abcam

ab175933

Anti-53BP1 antibody [EPR2172(2)]

Anti-53BP1 antibody [EPR2172(2)] (ab175933) is a rabbit monoclonal antibody detecting 53BP1 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 50 publications

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR2172(2)
Purification technique	Affinity purification Protein A
Concentration	0.288 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/60 - 1/250
Notes	-

Species	Rat
Dilution info	1/60 - 1/250
Notes	-

Species	Human
Dilution info	1/60 - 1/250
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/5000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/5000
Notes	-

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information TP53BP1

Function

Double-strand break (DSB) repair protein involved in response to DNA damage, telomere dynamics and class-switch recombination (CSR) during antibody genesis (PubMed:12364621, PubMed:17190600, PubMed:21144835, PubMed:22553214, PubMed:23333306, PubMed:27153538, PubMed:28241136, PubMed:31135337, PubMed:37696958). Plays a key role in the repair of double-strand DNA breaks (DSBs) in response to DNA damage by promoting non-homologous end joining (NHEJ)-mediated repair of DSBs and specifically counteracting the function of the homologous recombination (HR) repair protein BRCA1 (PubMed:22553214, PubMed:23333306, PubMed:23727112, PubMed:27153538, PubMed:31135337). In response to DSBs, phosphorylation by ATM promotes interaction with RIF1 and dissociation from NUDT16L1/TIRR, leading to recruitment to DSBs sites (PubMed:28241136). Recruited to DSBs sites by recognizing and binding histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites (PubMed:17190600, PubMed:23760478, PubMed:27153538, PubMed:28241136). Required for immunoglobulin class-switch recombination (CSR) during antibody genesis, a process that involves the generation of DNA DSBs (PubMed:23345425). Participates in the repair and the orientation of the broken DNA ends during CSR (By similarity). In contrast, it is not required for classic NHEJ and V(D)J

recombination (By similarity). Promotes NHEJ of dysfunctional telomeres via interaction with PAXIP1 (PubMed:23727112).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-53BP1 antibody [EPR2172(2)] (ab175933) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of 53BP1?
Anti-53BP1 [EPR2172(2)] (ab175933) specifically detects a band for 53BP1 (UniProt: Q12888) at a molecular weight of 214kDa.

Trusted by the scientific community
Anti-53BP1 [EPR2172(2)] (ab175933) was first used in a scientific publication in 2013 and has been cited over 50 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-53BP1 antibody [EPR2172(2)] (ab175933) has been confirmed by Western blot testing in TP53BP1 Knockout HAP1 cells.

Other related products
We have a range of other formats of antibody clone [EPR2172(2)] also available for your convenience: ab175933, Carrier free - ab222232, Alexa Fluor® 488 - ab237174, Alexa Fluor® 647 - ab307631, APC - ab310834, PE - ab310909, Alexa Fluor® 594 - ab311697, Alexa Fluor® 568 - ab312972, Alexa Fluor® 555 - ab313181, Alexa Fluor® 750 - ab321183

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	53BP1 also known as p53-binding protein 1 is a protein that plays an important role in DNA damage response. The 53BP1 protein has a molecular weight of approximately 213 kDa. It is a nuclear protein and it mainly expresses in cells during the DNA damage repair processes. Researchers commonly utilize immunofluorescence and anti-53BP1 antibodies to detect its presence especially for studying DNA repair mechanisms. 53BP1 proves important for maintenance of genomic stability.
Biological function summary	As a DNA damage response mediator 53BP1 functions to recognize and bind to sites of double-strand breaks in DNA promoting non-homologous end joining (NHEJ). This protein is a component of a larger protein complex that recruits factors necessary for DNA repair. Its interaction with DNA lesions also involves chromatin remodeling aiming to facilitate successful repair of the DNA. 53BP1 works in concert with other proteins such as H2AX and MDC1.
Pathways	Researchers observe 53BP1 in processes such as the DNA damage checkpoint and repair pathways. This protein significantly contributes to the pathways involved in maintaining cell cycle checkpoints. It interacts with proteins like ATM and BRCA1 coordinating the cellular response to DNA damage and ensuring that genomic integrity checks occur properly before cell cycle progression continues. These interactions place 53BP1 at a pivotal position in decision-making between repair pathways.
Associated diseases and disorders	Researchers often focus on 53BP1's involvement in cancer development and therapy resistance due to its role in DNA repair. Alterations or deficiencies in 53BP1 levels can contribute to increased susceptibility to tumor development affecting processes like breast cancer and ovarian cancer through its relationship with BRCA1. The improper function of 53BP1 in DNA repair pathways may lead to an accumulation of genetic mutations driving tumorigenesis and impacting the efficacy of certain cancer treatments.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

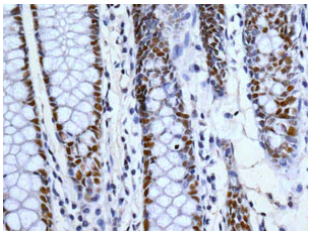
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

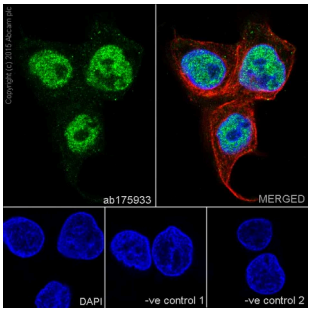
Full details and terms and conditions can be found here:
Terms & Conditions.

25 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labelling 53BP1 with unpurified ab175933 at a dilution of 1/100.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

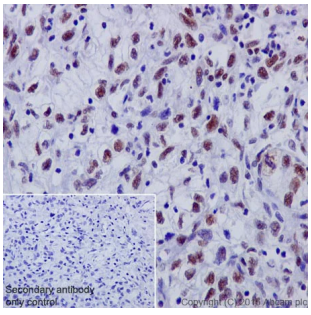


Immunocytochemistry/ Immunofluorescence - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-53BP1 antibody

Immunocytochemistry/Immunofluorescence analysis of HepG2 cells labelling 53BP1 with purified ab175933 at 1/200. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.
Control 1: primary antibody (1/200) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

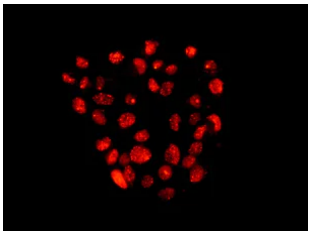
Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-53BP1 antibody

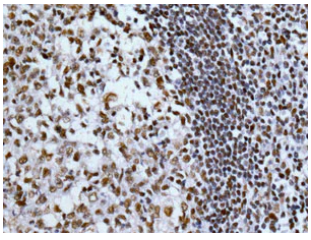
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver carcinoma tissue labelling 53BP1 with purified ab175933 at a dilution of 1/60. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunocytochemistry/ Immunofluorescence - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-53BP1 antibody

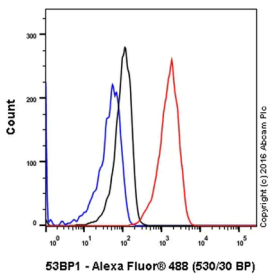
Immunocytochemistry/Immunofluorescence analysis of HepG2 cells labelling 53BP1 with unpurified ab175933 at a dilution of 1/100.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-53BP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling 53BP1 with unpurified ab175933 at a dilution of 1/100.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

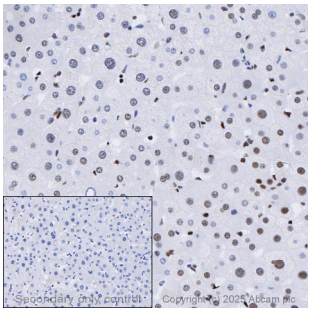


Flow Cytometry (Intracellular) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Flow Cytometry (Intracellular) staining using rabbit Anti-53BP1 antibody

ab175933 staining 53BP1in the human cell lineHepG2 (human hepatocellular carcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/30. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



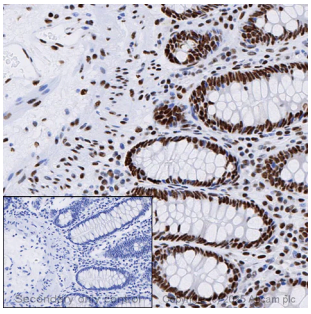
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of human liver tissue using rabbit Anti-53BP1 antibody

Immunohistochemical analysis of formalin fixed paraffin embedded human liver labelling 53BP1 with ab175933 at a concentration of 0.05µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with a OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was performed with DISCOVERY cell conditioning solution (CC1) 100°C, pH8.5 for 32mins.

ab175933 Anti-53BP1 antibody [EPR2172(2)] was incubated for 16mins at 37°C. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual).



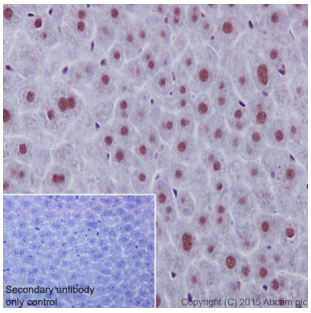
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of human colon tissue using rabbit Anti-53BP1 antibody

Immunohistochemical analysis of formalin fixed paraffin embedded human colon labelling 53BP1 with ab175933 at a concentration of 0.05µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with a OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was performed with DISCOVERY cell conditioning solution (CC1) 100°C, pH8.5 for 32mins.

ab175933 Anti-53BP1 antibody [EPR2172(2)] was incubated for 16mins at 37°C. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

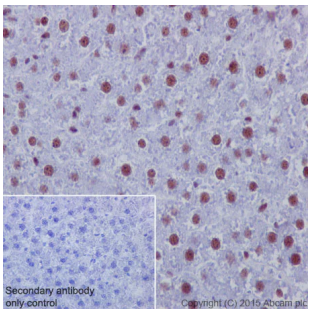
Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-53BP1 antibody

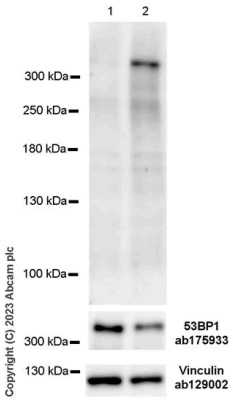
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue labelling 53BP1 with purified ab175933 at a dilution of 1/60. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-53BP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue labelling 53BP1 with purified ab175933 at a dilution of 1/60. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 350kDa dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T670) antibody [EPR27060-30] (ab314866) at 1/1000 dilution

Lane 1:
Untreated HeLa (human cervix adenocarcinoma epithelial cell) at 20 µg

Lane 2:
HeLa treated with 20J/m2 UV, then recovery for 1 hour, whole cell lysate at 20 µg

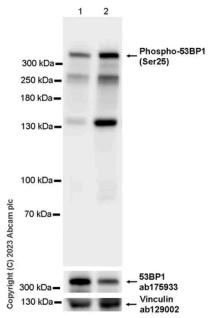
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Developed using the ECL technique.

Observed band size: 350 kDa, 124 kDa

Exposure time: 114s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The identity of the bands below 300 kDa is unknown.

Lysates were freshly made and used for Western blotting immediately to minimize protein degradation.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho S25) antibody [EPR27057-33] (ab315015) at 1/1000 dilution

Lane 1:
Untreated U-2 OS (human bone osteosarcoma epithelial cell) whole cell lysate at 20 µg

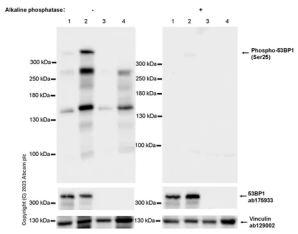
Lane 2:
U-2 OS treated with 10um Camptothecin for 1 hour, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 3s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The identity of the bands below 300 kDa is unknown.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho S25) antibody [EPR27057-33] (ab315015) at 1/1000 dilution

Lane 1:
Untreated wild-type HAP1 (human chronic myelogenous leukemia near-haploid cell line) whole cell lysate (untreated membrane) at 20 µg

Lane 2:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 3:
Untreated TP53BP1 knockout HAP1 whole cell lysate (untreated membrane) at 20 µg

Lane 4:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 5:
Untreated wild-type HAP1 whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 6:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 7:
Untreated TP53BP1 knockout HAP1 whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

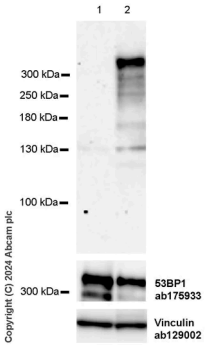
Lane 8:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 3s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

The identity of the band at 130 kDa is unknown.

The bands beneath the target band (350 kDa) are likely to be degraded target fragments .

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172 (2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T543) antibody [EPR27059-168] (ab316316) at 1/1000 dilution

Lane 1:
Untreated HeLa (human epithelial cell line from cervical adenocarcinoma) whole cell lysate at 20 µg

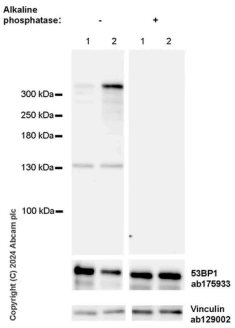
Lane 2:
HeLa treated with /ml Calyculin A for 15 minutes, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 180s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

The identity of the band at 130 kDa is unknown.

The bands beneath the target band (350 kDa) are likely to be degraded target fragments which are with total protein control ab175933 .

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172 (2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T543) antibody [EPR27059-168] (ab316316) at 1/1000 dilution

Lane 1:
Untreated U-2 OS (human bone osteosarcoma epithelial cell) whole cell lysate (untreated membrane) at 20 µg

Lane 2:
U-2 OS treated with 10um Camptothecin for 1 hour, whole cell lysate (untreated membrane) at 20 µg

Lane 3:
Untreated U-2 OS (human bone osteosarcoma epithelial cell) whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

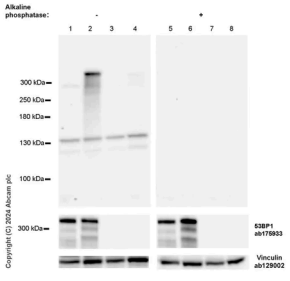
Lane 4:
U-2 OS treated with 10um Camptothecin for 1 hour, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 48s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

The identity of the band at 130 kDa is unknown.

The bands beneath the target band (350 kDa) are likely to be degraded target fragments which are with total protein control ab175933.

In Western blot, ab316316 was shown to bind specifically to 53BP1 (phospho T543). A band was observed at 350 kDa in Calyculin A treated wild-type HAP1 cell lysates whereas loss of signal was observed in the 53BP1 knockout cell line.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172 (2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T543) antibody [EPR27059-168] (ab316316) at 1/1000 dilution

Lane 1:
Untreated wild-type HAP1(human chronic myelogenous leukemia near-haploid cell line) whole cell lysate (untreated membrane) at 20 µg

Lane 2:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 3:
Untreated TP53BP1 knockout HAP1 whole cell lysate (untreated membrane) at 20 µg

Lane 4:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 5:
Untreated wild-type HAP1(human chronic myelogenous leukemia near-haploid cell line) whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 6:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 7:
Untreated TP53BP1 knockout HAP1 whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

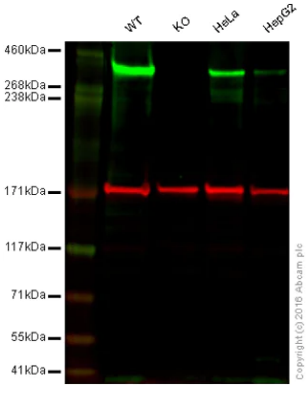
Lane 8:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 48s



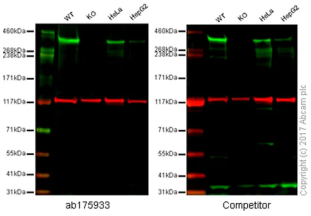
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: 53BP1 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (40 µg)
Lane 4: HepG2 cell lysate (40 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab175933 observed at 350 kDa. Red - loading control, ab18058, observed at 124 kDa.
ab175933 was shown to specifically react with 53BP1 when 53BP1 knockout samples were used. Wild-type and 53BP1 knockout samples were subjected to SDS-PAGE. ab175933 and ab18058 (loading control to Vinculin) were diluted 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

Predicted band size: 214 kDa



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

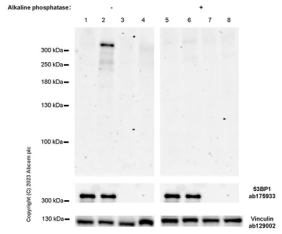
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: 53BP1 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (40 µg)
Lane 4: HepG2 cell lysate (40 µg)
Lanes 1 - 4: Merged signal (red and green).

Green - Target observed at 350 kDa. Red - loading control, ab18058, observed at 124 kDa.

This western blot image is a comparison between ab175933 and a competitor's top cited rabbit polyclonal antibody.

All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

Predicted band size: 214 kDa



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 350kDa dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T670) antibody [EPR27060-30] (ab314866) at 1/1000 dilution

Lane 1:
Untreated wild-type HAP1(human chronic myelogenous leukemia near-haploid cell line) whole cell lysate (untreated membrane) at 20 µg

Lane 2:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 3:
Untreated TP53BP1 knockout HAP1 whole cell lysate (untreated membrane) at 20 µg

Lane 4:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 5:
Untreated wild-type HAP1(human chronic myelogenous leukemia near-haploid cell line) whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 6:
Wild-type HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 7:
Untreated TP53BP1 knockout HAP1 whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

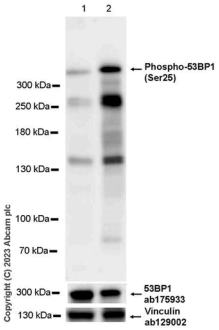
Lane 8:
TP53BP1 knockout HAP1 treated with 100nM Calycin A for 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 180s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST

The identity of the bands below 300 kDa is unknown.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-53BP1 (phospho S25) antibody [EPR27057-33] (ab315015) at 1/1000 dilution

Lane 1:
Untreated HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

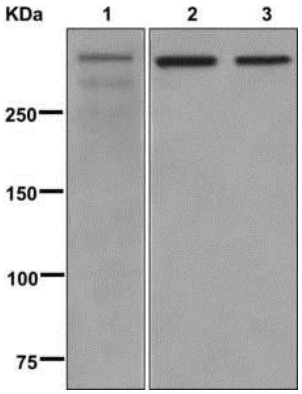
Lane 2:
HeLa treated with 20J/m2 UV, then recovery for 1 hour, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 10s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933) at 1/1000 dilution

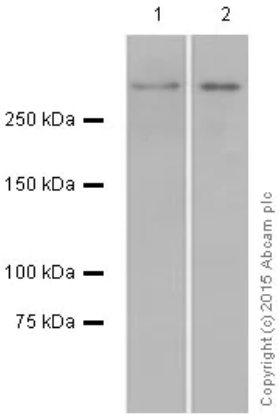
Lane 1:
HepG2 cell lysate at 1/10 dilution

Lane 2:
Human fetal brain lysate at 1/10 dilution

Lane 3:

Human fetal heart lysate at 1/10 dilution

Predicted band size: 214 kDa



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

Blocking and dilution buffer: 5% NFDM /TBST.
All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933) at 1/5000 dilution

Lane 1:
Human fetal heart tissue lysate at 20 µg

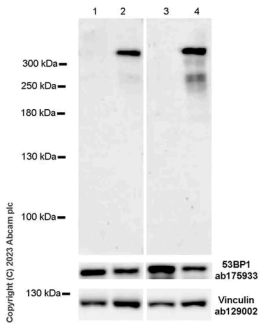
Lane 2:
HeLa whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 214 kDa

Observed band size: 450 kDa



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining using rabbit Anti-53BP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-53BP1 antibody [EPR2172(2)] (ab175933) staining at 350kDa dilution.

All lanes:
Western blot - Anti-53BP1 (phospho T670) antibody [EPR27060-30] (ab314866) at 1/1000 dilution

Lane 1:
HeLa (human epithelial cell line from cervical adenocarcinoma) whole cell lysate at 20 µg

Lane 2:
HeLa treated with 100ng/ml Calyculin A for 10 minutes, whole cell lysate at 20 µg

Lane 3:
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

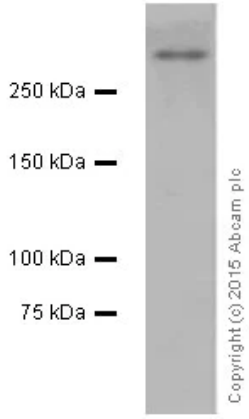
Lane 4:
A431 treated with 100ng/ml Calyculin A for 15 minutes, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 350 kDa, 124 kDa

Exposure time: 180s



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

53BP1 Western blot staining of Rat heart tissue lysate using rabbit Anti-53BP1 antibody

Blocking and dilution buffer: 5% NFDM /TBST.
All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933) at 20 µg

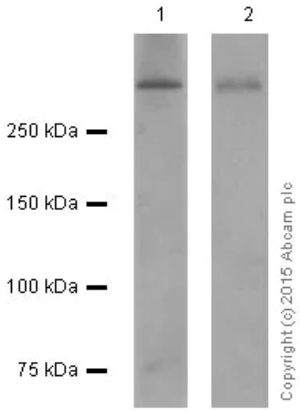
All lanes:
Rat heart tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 214 kDa

Observed band size: 450 kDa



Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933)

Blocking and dilution buffer: 5% NFDM /TBST.
All lanes:
Western blot - Anti-53BP1 antibody [EPR2172(2)] (ab175933) at 1/1000 dilution

Lane 1:
Mouse heart tissue lysate at 10 µg

Lane 2:
Mouse brain tissue lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 214 kDa

Observed band size: 450 kDa

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