abcam

ab181553

Anti-IRF5 antibody [EPR17067]

Anti-IRF5 antibody [EPR17067] (ab181553) is a rabbit monoclonal antibody detecting IRF5 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 20 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	EPR17067
Purification technique	Affinity purification Protein A
Concentration	1.21 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/150
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Expected

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

ICC/IF

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/500
Notes	

	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information IRF5

Function	Transcription factor that plays a critical role in innate immunity by activating expression of type I interferon (IFN) IFNA and INFB and inflammatory cytokines downstream of endolysosomal toll-like receptors TLR7, TLR8 and TLR9 (PubMed:11303025, PubMed:15695821, PubMed:22412986, PubMed:25326418, PubMed:32433612). Regulates the transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes (ISG) by binding to an interferon-stimulated response element (ISRE) in their promoters (By similarity). Can efficiently activate both the IFN-beta (IFNB) and the IFN-alpha (IFNA) genes and mediate their induction downstream of the TLR-activated, MyD88-dependent pathway (By similarity). Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:33440148).

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

Product Specifications

Anti-IRF5 antibody [EPR17067] (ab181553) was developed by Abcam using patented rabbit monoclonal antibody

technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-P, IP, WB in human, mouse, rat samples.
Anti-IRF5 antibody [EPR17067] (ab181553) specifically detects IRF5 (UniProt ID: Q13568; Molecular weight: 56kDa) and is sold in 100 µL and 1 mL selling sizes.

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-IRF5 antibody [EPR17067] (ab181553) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
The specificity of Anti-IRF5 antibody [EPR17067] (ab181553) has been confirmed by testing in knockout samples.
Anti-IRF5 antibody [EPR17067] (ab181553) has been cited over 24 times in peer reviewed journals and is trusted by the scientific community.

Related Products
Antibody clone EPR17067 is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488 (ab208271).
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.

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

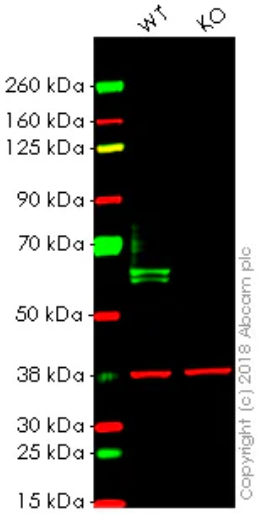
We do not recommend this combination. It is not covered by our product promise.

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.

19 product images



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

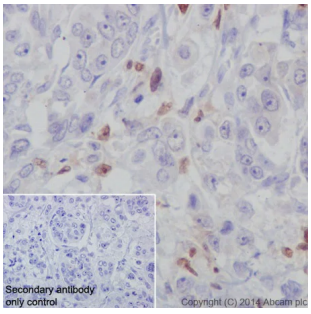
Lanes 1 - 2: Merged signal (red and green). Green - ab181553 observed at 56 kDa. Red - loading control, ab9484, observed at 37 kDa.
ab181553 was shown to specifically react with IRF5 in wild-type HAP1 cells as signal was lost in IRF5 knockout cells. Wild-type and IRF5 knockout samples were subjected to SDS-PAGE. ab181553 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/1000 dilution

Lane 1:
Wild-type HAP1 whole cell lysate at 20 µg

Lane 2:
IRF5 knockout HAP1 whole cell lysate at 20 µg

Predicted band size: 56 kDa

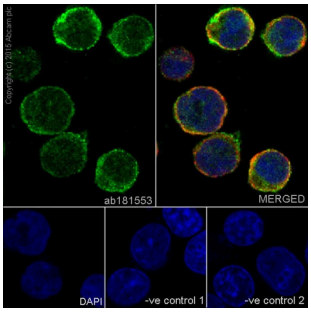


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labeling IRF5 with ab181553 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Nuclear and cytoplasmic staining on leukocyte of Human breast cancer stroma is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

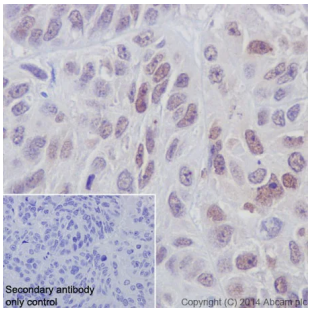
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IRF5 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (Human monocytic leukemia cells) cells labeling IRF5 with ab181553 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Confocal image showing cytoplasmic and weakly nuclear staining on THP-1 cells. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red). The negative controls are as follows:
-ve control 1: ab181553 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

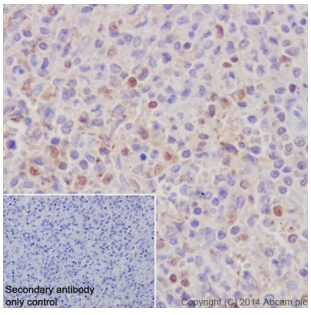


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

Immunohistochemical analysis of paraffin-embedded Human lung cancer tissue labeling IRF5 with ab181553 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Nucleus staining on cancer cells of Human lung cancer is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

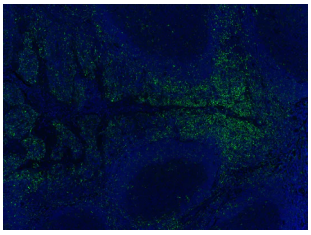


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling IRF5 with ab181553 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Nuclear and cytoplasmic staining on leukocytes of Human spleen is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

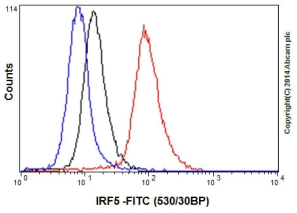
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

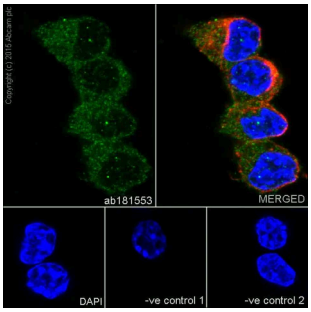
Anti-IRF5 antibody [EPR17067] (ab181553)
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling IRF5 with ab181553 at a dilution of 1:500. Heat mediated antigen retrieval was performed using AR9 antigen retrieval solution, and microwave treatment for 15 min at 20% power. Anti-Rabbit/Mouse HRP polymer (PerkinElmer Opal Polymer HRP Ms Plus Rb) was used as secondary antibody. Opal tyramide amplification was performed using Opal 520 fluorophore. Counterstained with DAPI stain. Image scanned with Vectra 3.0 and analyzed via Phenochart software.
This image was courteously provided by Dr. Houssein Abdul Sater, Georgia Cancer Center.



Flow Cytometry (Intracellular) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Flow Cytometry (Intracellular) staining using rabbit Anti-IRF5 antibody

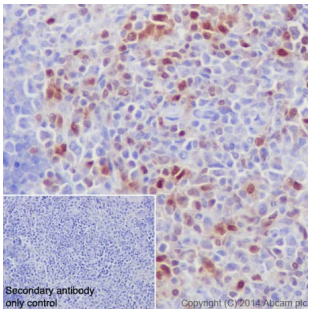
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed THP-1 (Human monocytic leukemia cells) cells labeling IRF5with ab181553 at 1/50 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730;black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IRF5 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) cells labeling IRF5 with ab181553 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Confocal image showing cytoplasmic and weakly nuclear staining on RAW 264.7 cells. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab181553 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



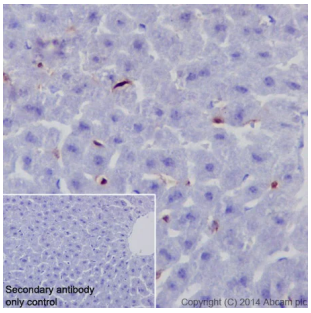
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling IRF5 with ab181553 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary

antibody at 1/500 dilution. Nuclear and cytoplasmic staining on lymphocytes of rat spleen is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

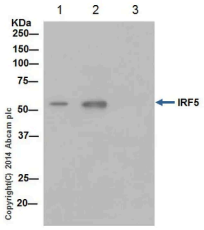


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF5 antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling IRF5 with ab181553 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Nuclear staining on kupffer cells of mouse liver is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 was immunoprecipitated from 1mg of RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate with ab181553 at 1/150 dilution. Western blot was performed from the immunoprecipitate using ab181553 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.
Lane 1: RAW 264.7 whole cell lysate 10 µg (Input).

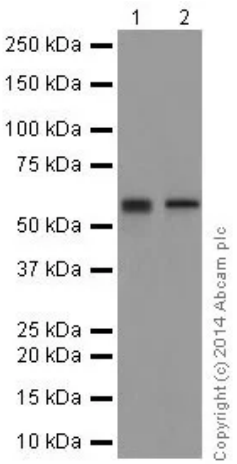
Lane 2: ab181553 IP in RAW 264.7 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab181553 in RAW 264.7 whole cell lysate.

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

All lanes:
Immunoprecipitation - Anti-IRF5 antibody [EPR17067] (ab181553)

Predicted band size: 56 kDa



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/50000 dilution

Lane 1:
THP-1 (Human monocytic leukemia cells) whole cell lysate at 10 µg

Lane 2:
A20 (Mouse reticulum cell sarcoma cell line) whole cell lysate at 10 µg

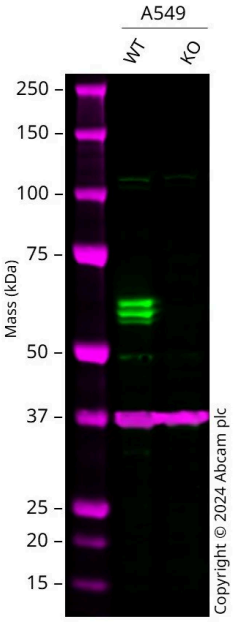
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 55 kDa

Exposure time: 1min



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Western blot: Anti-IRF5 antibody [EPR17067] (ab181553) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab181553 was shown to bind specifically to IRF5. A band was observed at 50-70 kDa in wild-type A549 cell lysates with no signal observed at this size in IRF5 knockout cell line. To generate this image, wild-type and IRF5 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/1000 dilution

Lane 1:
Wild-type A549 cell lysate at 20 µg

Lane 2:
Western blot - Human IRF5 knockout A549 cell line (ab301006)

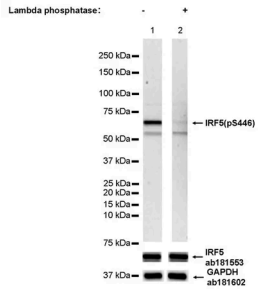
Lane 2:
IRF5 knockout A549 cell lysate at 20 µg

Secondary

All lanes:
Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 50 kDa, 70 kDa



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
In Western blot, anti-IRF5 antibody (ab181553) staining at 1/1000 dilution.

Anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution.

All lanes:
Western blot - Anti-IRF5 (phospho S446) antibody [EPR26132-254] (ab309088) at 1/1000 dilution

Lane 1:
293T cells transfected with a human IRF5 expression vector containing a His-tag whole cell lysate (untreated membrane) at 20 µg

Lane 2:
293T cells transfected with a human IRF5 expression vector containing a His-tag whole cell lysate (phosphatase treated membrane) at 20 µg

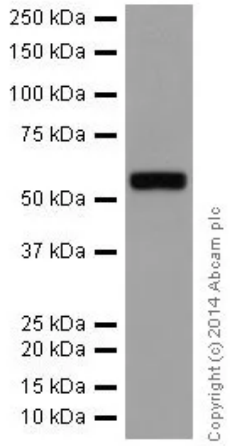
Secondary

All lanes:

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

Observed band size: 56 kDa

Exposure time: 180s



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining of Ramos (Human Burkitt's lymphoma cell line) whole cell lysate using rabbit Anti-IRF5 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/2000 dilution

All lanes:
Ramos (Human Burkitt's lymphoma cell line) whole cell lysate at 10 µg

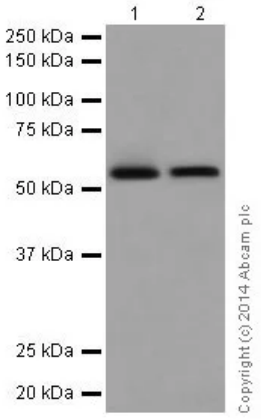
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 55 kDa

Observed band size: 55 kDa

Exposure time: 1min



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/2000 dilution

Lane 1:
Mouse thymus lysate at 10 µg

Lane 2:
Rat thymus lysate at 10 µg

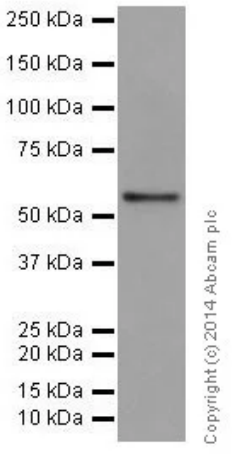
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 55 kDa

Exposure time: 1min



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining of RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate using rabbit Anti-IRF5 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/5000 dilution

All lanes:
RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

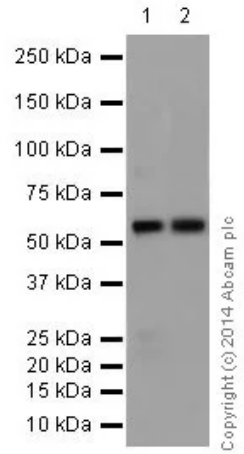
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 55 kDa

Exposure time: 5s



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/2000 dilution

Lane 1:
Mouse spleen lysate at 10 µg

Lane 2:
Rat spleen lysate at 10 µg

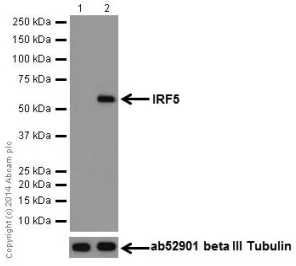
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 55 kDa

Observed band size: 55 kDa

Exposure time: 30s



Western blot - Anti-IRF5 antibody [EPR17067] (ab181553)

IRF5 Western blot staining using rabbit Anti-IRF5 antibody

Transfected lysate from abcam (Cat#:ab94265).
Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-IRF5 antibody [EPR17067] (ab181553) at 1/5000 dilution

Lane 1:
Non-transfected HEK293T (Human epithelial cells from embryonic kidney) whole cell lysate at 10 µg

Lane 2:
IRF5 transfected HEK293T (Human epithelial cells from embryonic kidney) whole cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 55 kDa

Exposure time: 1min

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