abcam

ab315395

Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR28687-87
Purification technique	Affinity purification Protein A
Concentration	1.052 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IHC-P

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

Target data

See full target information Irf4

Function Transcriptional activator. Binds to the interferon-stimulated response element (ISRE) of the MHC class I promoter. Binds the immunoglobulin lambda light chain enhancer, together with PU.1. Probably plays a role in ISRE-targeted signal transduction mechanisms specific to lymphoid cells. Involved in CD8(+) dendritic cell differentiation by forming a complex with the BATF-JUNB heterodimer in immune cells, leading to recognition of AICE sequence (5'-TGAnTCA/GAAA-3'), an immune-specific regulatory element, followed by cooperative binding of BATF and IRF4 and activation of genes.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab315395 is the carrier-free version of ab315394.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	The IRF4 protein also known as Interferon Regulatory Factor 4 is a transcription factor encoded by the IRF4 gene. It weighs approximately 52 kDa. IRF4 is expressed mainly in lymphoid cells including B cells T cells and macrophages. It plays a mechanical role in regulating gene expression by binding to specific DNA sequences. Through these interactions IRF4 influences various cellular processes important for the immune response.
Biological function summary	IRF4 helps in the activation and differentiation of immune cells. It forms complexes with other transcription factors like PU.1 enhancing its regulatory functions. IRF4 also contributes to the maturation of B and T lymphocytes impacting the adaptive immune system. It acts by modulating expression of cytokines and surface markers involved in immune response.
Pathways	IRF4 functions within the immune response and cell differentiation pathways. It interacts with pathways like NF-kB and MAPK linking it to important immune regulatory processes. IRF4 associates with proteins such as c-Rel in the NF-kB pathway influencing gene expression related to immune activation and survival.
Associated diseases and disorders	IRF4 plays a role in multiple myeloma and autoimmune disorders. Aberrant expression of IRF4 can lead to dysregulated immune cell proliferation as seen in multiple myeloma. It also connects with proteins like BLIMP-1 contributing to pathogenesis of autoimmune conditions. Understanding IRF4's involvement provides insights into potential therapeutic targets for such diseases.

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

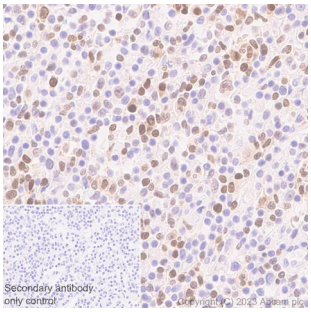
We do not recommend this combination. It is not covered by our product promise.

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.

16 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

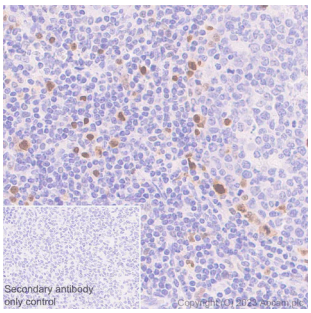
Immunohistochemical analysis of paraffin-embedded Human Hodgkin's lymphoma tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in Human Hodgkin's lymphoma.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

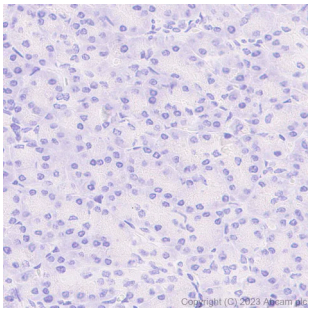
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human tonsil.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human pancreas using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

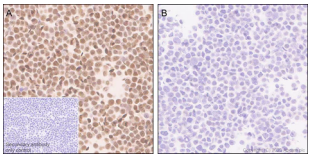
Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: No staining in human pancreas.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded A Ramos (human Burkitt's lymphoma B lymphocyte) cell pellets; B Jurkat (human T cell leukemia T lymphocyte from peripheral blood) cell pellets. tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

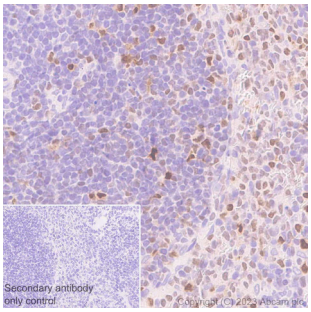
Positive staining in A: Ramos cell pellets, nearly no staining in B: Jurkat cell pellets.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

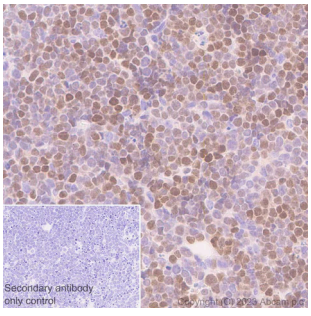
Positive staining in rat spleen.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse Burkitt's lymphoma tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

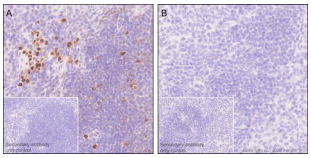
Positive staining in mouse Burkitt's lymphoma.
The section was incubated with ab315394 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



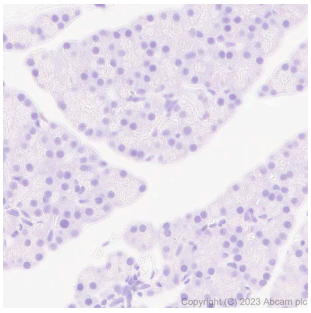
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded (A) Lymph node tissue from wild-type C57BL/6JGpt mice (B) Lymph node tissue from Irf4 knockout mice labelling LRF4 with ab315394 at 1/500 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on (A) Lymph node tissue from wild-type C57BL/6JGpt mice and no staining on (B) Lymph node tissue from Irf4 knockout mice. The primary antibody was incubated for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Irf4-KO homozygous mice (Strain ID: T012675).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat pancreas using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

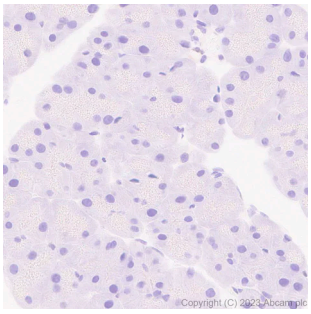
Immunohistochemical analysis of paraffin-embedded Rat pancreas tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: No staining in rat pancreas.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse pancreas using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

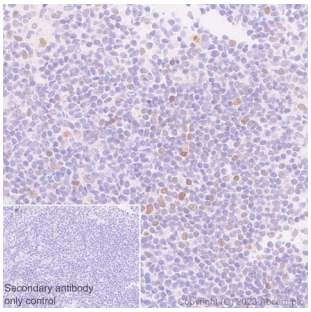
Immunohistochemical analysis of paraffin-embedded Mouse pancreas tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: No staining in mouse pancreas.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

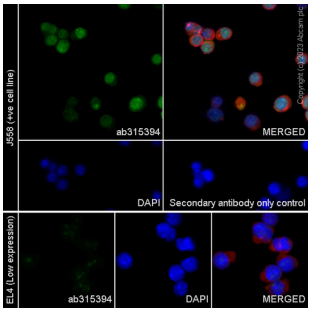
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in mouse spleen.
The section was incubated with ab315394 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

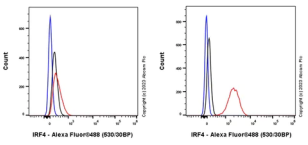
This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized J558 (mouse B lymphocyte lymphoblast) cells labelling IRF4 with ab315394 at 1/100 (5.12 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green).

Confocal image showing mainly nuclear staining in J558 cells and showing weak nuclear staining in EL4 cells.
Low expression: EL4 (PMID: 24711583).
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution.



Flow Cytometry (Intracellular) - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

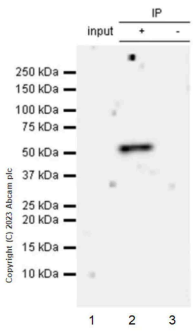
This data was developed using ab315394, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized EL4 (mouse lymphoma T lymphocyte, Left) / J558 (mouse B lymphocyte lymphoblast, Right) cells labelling IRF4 with ab315394 at 1/5000 dilution (0.01 ug)/Red compared with a Rabbit monoclonal IgG

(ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Low expression: EL4.



Immunoprecipitation - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

This data was developed using ab315394, the same antibody clone in a different buffer formulation.
IRF4 was immunoprecipitated from 0.35 mg Mouse lymph node tissue lysate with ab315394 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab315394 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

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

All lanes:
Immunoprecipitation - Anti-IRF4 antibody [EPR28687-87] (ab315394) at 1/1000 dilution

Lane 1:
Mouse lymph node tissue lysate

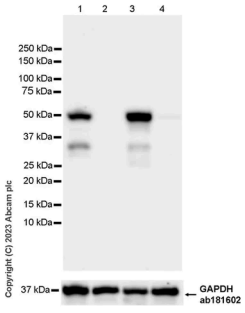
Lane 2:
ab315394 at 1/30 IP in Mouse lymph node tissue lysate

Lane 3:
Rabbit monoclonal IgG (ab172730) instead of ab315394 in Mouse lymph node tissue lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Western blot - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Western blot staining using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Low expression: Jurkat(PMID: 10714679), EL4(PMID: 24711583)

Lower bands could be ubiquitin mediated protein degradation. (PMID: 23658517)

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-IRF4 antibody [EPR28687-87] (ab315394) at 1/1000 dilution

Lane 1:

Ramos (human Burkitts lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
Jurkat (human T cell leukemia T lymphocyte from peripheral blood) whole cell lysate at 20 µg

Lane 3:
J558 (mouse B lymphocyte lymphoblast) whole cell lysate at 20 µg

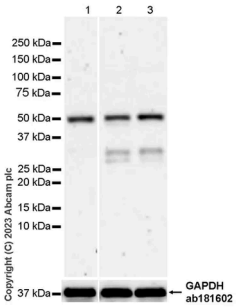
Lane 4:
EL4 (mouse lymphoma T lymphocyte) whole cell lysate at 20 µg

Secondary

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

Observed band size: 35 kDa, 51 kDa, 36 kDa

Exposure time: 26s



Western blot - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Western blot staining using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Lower bands could be ubiquitin mediated protein degradation. (PMID: 23658517).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-IRF4 antibody [EPR28687-87] (ab315394) at 1/1000 dilution

Lane 1:
Mouse lymph node tissue lysate at 20 µg

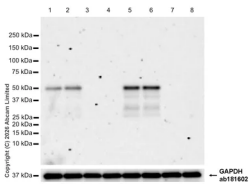
Lane 2:
Rat spleen tissue lysate at 20 µg

Lane 3:
Rat lymph node tissue lysate at 20 µg

Secondary

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

Observed band size: 51 kDa, 35 kDa, 36 kDa



Western blot - Anti-IRF4 antibody [EPR28687-87] - BSA and Azide free (ab315395)

IRF4 Western blot staining using rabbit Anti-IRF4 antibody

This data was developed using ab315394, the same antibody clone in a different buffer formulation.

In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution.

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

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and Irf4-KO homozygous mice (Strain ID: T012675). This blot was developed using a high-sensitivity ECL substrate, allowing for the detection of proteins in the mid-femtogram range.
All lanes:
Western blot - Anti-IRF4 antibody [EPR28687-87] (ab315394) at 1/1000 dilution

Lane 1:
Wild-type mouse spleen tissue lysate (female case1) at 20 µg

Lane 2:
Wild-type mouse spleen tissue lysate (female case2) at 20 µg

Lane 3:
Irf4 knockout mouse spleen tissue lysate (female case1) at 20 µg

Lane 4:
Irf4 knockout mouse spleen tissue lysate (female case2) at 20 µg

Lane 5:
Wild-type mouse lymph node tissue lysate (female case1) at 20 µg

Lane 6:
Wild-type mouse lymph node tissue lysate (female case2) at 20 µg

Lane 7:
Irf4 knockout mouse lymph node tissue lysate (female case1) at 20 µg

Lane 8:
Irf4 knockout mouse lymph node tissue lysate (female case2) at 20 µg

Secondary

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

Observed band size: 51 kDa, 36 kDa

Exposure time: 3min

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