abcam

ab242427

Anti-IRF4 antibody [SP114] - 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	SP114
Purification technique	Affinity purification Protein A/G
Specificity	Not suitable for IP-Mouse.
Concentration	1.033 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	-
Notes	-

Predicted

Species	Chicken, Cow, Dog, Mouse, Rat, Rabbit
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse
Dilution info	-
Notes	Not suitable for IP-Mouse.

Species	Chicken
Dilution info	-
Notes	-

Species	Cow
Dilution info	-
Notes	-

Species	Dog
Dilution info	-
Notes	-

Species	Human
Dilution info	-
Notes	-

Species	Rat
Dilution info	-
Notes	-

Species	Rabbit
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	Primary antibody incubation for 1 hour at room temperature.

Predicted

Species	Chicken, Cow, Dog, Mouse, Rat, Rabbit
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Perform heat mediated antigen retrieval with 10 mM EDTA buffer before commencing with IHC staining protocol. Primary antibody incubation for 30 minutes at room temperature.

Predicted

Species	Chicken, Cow, Dog, Mouse, Rat, Rabbit
Dilution info	-
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
Storage information	Do Not Freeze

Notes

ab242427 is the carrier-free version of ab227646.

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

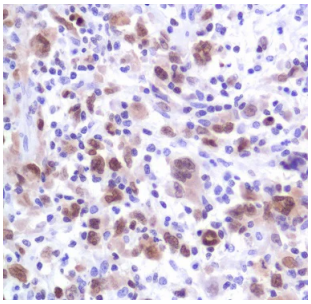
We do not recommend this combination. It is not covered by our product promise.

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.

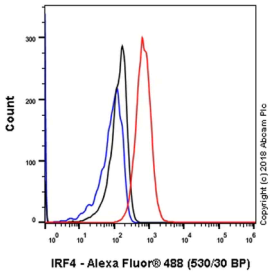
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - BSA and Azide free (ab242427)

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

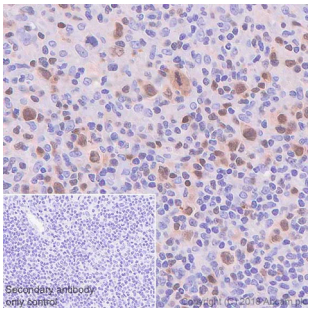
Formalin-fixed, paraffin-embedded human Hodgkin's lymphoma tissue stained for IRF4 using ab227646 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab227646).



Flow Cytometry (Intracellular) - Anti-IRF4 antibody [SP114] - BSA and Azide free (ab242427)

IRF4 Flow Cytometry (Intracellular) staining using rabbit Anti-IRF4 antibody

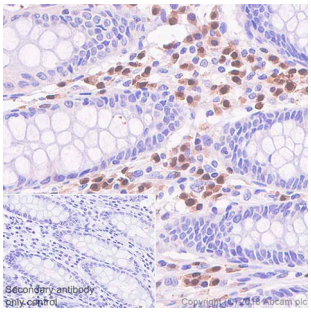
Flow Cytometry analysis of Ramos(Human Burkitt's lymphoma B lymphocyte) cells labeling IRF4 with purified ab227646 at 1:230 dilution (1.01 µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab115803).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - BSA and Azide free (ab242427)

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

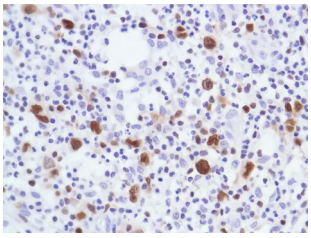
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human Hodgkin's lymphoma tissue sections labeling IRF4 with ab227646 at 1/100 dilution (2.32 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227646)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - BSA and Azide free (ab242427)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling IRF4 with ab227646 at 1/100 dilution (2.32 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - BSA and Azide free (ab242427)

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

Formalin-fixed, paraffin-embedded human HK lymphoma tissue stained for IRF4 using ab227646 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab227646).

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