abcam

ab227646

# Anti-IRF4 antibody [SP114] - C-terminal

Recombinant | RabMAb | 20ul selling size

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | SP114 |
| **Purification technique** | Affinity purification Protein A/G |
| **Specificity** | Not suitable for IP-Mouse. |
| **Concentration** | 0.102 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |
| **Purification notes** | Purified from TCS by protein A/G. |

## Reactivity data

## Flow Cyt (Intra)

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/230 |

| | |
|---|---|
| **Notes** | - |

### Predicted

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

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |
| **Notes** | Primary antibody incubation for 1 hour at room temperature. |

### Predicted

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

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |
| **Notes** | Perform heat mediated antigen retrieval with 10 mM EDTA buffer before commencing with IHC staining protocol.<br>Primary antibody incubation for 30 minutes at room temperature. |

### Predicted

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

# IP

## Not recommended

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

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Rabbit |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Chicken |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Cow |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Dog |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **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** | 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 |

## 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**

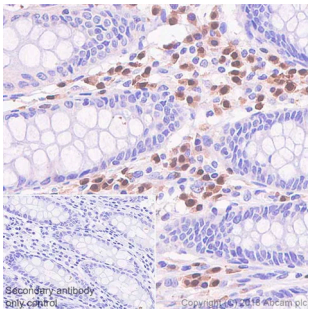
We do not recommend this combination. It is not covered by our product promise.

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.

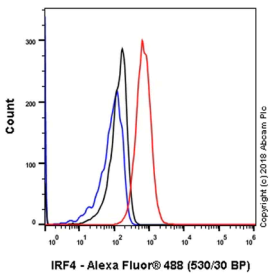
## 7 product images




### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

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

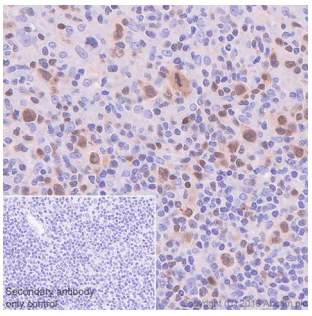
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling IRF4 with ab227646 at 1/100 dilution (2.32 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 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.




## Flow Cytometry (Intracellular) - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

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

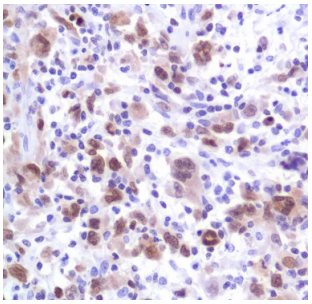
Flow Cytometry analysis of Ramos(Human Burkitt's lymphoma B lymphocyte) cells labeling IRF4 with purified ab227646 at 1:230 dilution (1.01 µg/ml) Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / Blue.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

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

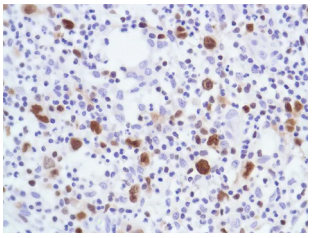
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human Hodgkin's lymphoma tissue sections labeling IRF4 with ab227646 at 1/100 dilution (2.32 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval 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.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

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

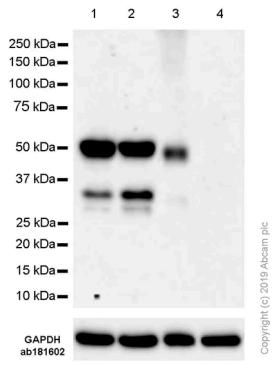
Formalin-fixed, paraffin-embedded human Hodgkin's lymphoma tissue stained for IRF4 using ab227646 at 1/100 dilution in immunohistochemical analysis.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

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.




## Western blot - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

Blocking/Diluting buffer and concentration: 5% NFDM /TBST
All lanes:
Western blot - Anti-IRF4 antibody [SP114] - C-terminal (ab227646) at 0.25 µg/mL

Lane 1:
Ramos (Human Burkitt's lymphoma B lymphocyte) cell lysate at 20 µg

Lane 2:
HuT-78 (Human Sezary syndrome cutaneous T lymphocyte) cell lysate at 20 µg

Lane 3:
IM-9 (Human peripheral blood lymphoblast) cell lysate at 20 µg

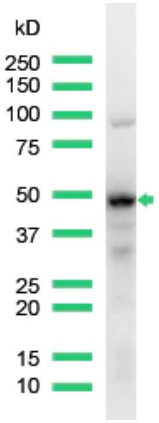
Lane 4:
293T (Human embryonic kidney epithelial cell) cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 0.05 µg/mL

Predicted band size: 52 kDa

Observed band size: 52 kDa




## Western blot - Anti-IRF4 antibody [SP114] - C-terminal (ab227646)

All lanes:
Western blot - Anti-IRF4 antibody [SP114] - C-terminal (ab227646) at 1/100 dilution

All lanes:
Ramos (human Burkitt's lymphoma cell line) cell lysate

Predicted band size: 52 kDa

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