

Product datasheet

Anti-IRF3 antibody [IRF35I218] ab50772

★★★★☆ [3 Abreviews](#) [9 References](#) [4 Images](#)

Overview

Product name	Anti-IRF3 antibody [IRF35I218]
Description	Mouse monoclonal [IRF35I218] to IRF3
Host species	Mouse
Tested applications	Suitable for: ICC/IF, WB, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment: VAWVNKSRTFRIPWKHGLR QDAQQEDFGI FQAWAEATGA YVPGRDKPD LPTWKRNF RSA LNRKEGLRLA EDRSKD, corresponding to amino acids 24-150 of Human IRF3 Run BLAST with Expasy Run BLAST with NCBI
Positive control	HEK293 whole cell lysate RIPA lysate of HeLa cells Hela cells
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	pH: 7.40 Preservative: 0.05% Sodium azide Constituents: 0.316% Tris HCl, 1% BSA, 1.16% Sodium chloride
Purity	Tissue culture supernatant
Purification notes	Concentrated and dialyzed culture medium (protein free medium) of hybridoma
Clonality	Monoclonal
Clone number	IRF35I218

Isotype

IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab50772 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/10.
WB	★★★★★ (3)	1/50 - 1/100. Detects a band of approximately 55 kDa (predicted molecular weight: 47 kDa).
Flow Cyt		Use 1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function

Mediates interferon-stimulated response element (ISRE) promoter activation. Functions as a molecular switch for antiviral activity. DsRNA generated during the course of an viral infection leads to IRF3 phosphorylation on the C-terminal serine/threonine cluster. This induces a conformational change, leading to its dimerization, nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of genes under the control of ISRE. The complex binds to the IE and PRDIII regions on the IFN-alpha and IFN-beta promoters respectively. IRF-3 does not have any transcription activation domains.

Tissue specificity

Expressed constitutively in a variety of tissues.

Sequence similarities

Belongs to the IRF family.
Contains 1 IRF tryptophan pentad repeat DNA-binding domain.

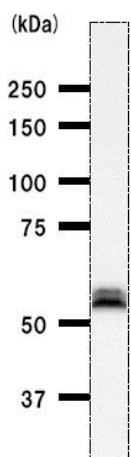
Post-translational modifications

Constitutively phosphorylated on many serines residues. C-terminal serine/threonine cluster is phosphorylated in response of induction by IKBKE and TBK1. Ser-385 and Ser-386 may be specifically phosphorylated in response to induction. An alternate model propose that the five serine/threonine residues between 396 and 405 are phosphorylated in response to a viral infection. Phosphorylation, and subsequent activation of IRF3 is inhibited by vaccinia virus protein E3.
Ubiquitinated; ubiquitination involves RBCK1 leading to proteasomal degradation.
Polyubiquitinated; ubiquitination involves TRIM21 leading to proteasomal degradation.
ISGylated by HERC5 resulting in sustained IRF3 activation and in the inhibition of IRF3 ubiquitination by disrupting PIN1 binding. The phosphorylation state of IRF3 does not alter ISGylation.

Cellular localization

Cytoplasm. Nucleus. Shuttles between cytoplasmic and nuclear compartments, with export being the prevailing effect. When activated, IRF3 interaction with CREBBP prevents its export to the cytoplasm.

Images



Western blot - Anti-IRF3 antibody [IRF35I218]
(ab50772)

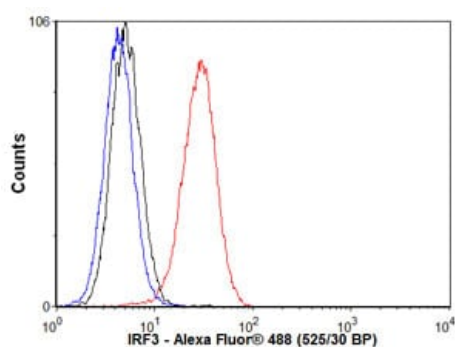
Anti-IRF3 antibody [IRF35I218] (ab50772) at 1/50 dilution + HT-1080 whole cell lysate at 25 µg

Secondary

Anti mouse IgG at 1/2500 dilution

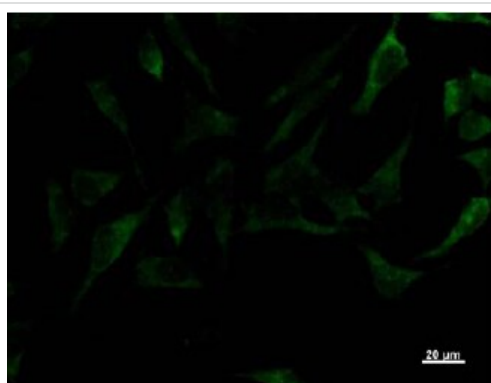
Predicted band size: 47 kDa

Observed band size: 55 kDa



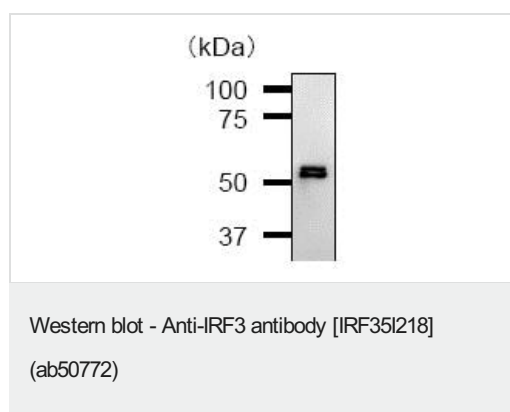
Flow Cytometry - Anti-IRF3 antibody [IRF35I218]
(ab50772)

Overlay histogram showing HeLa cells stained with ab50772 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab50772, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Anti-IRF3 antibody [IRF35I218] (ab50772)

Immunofluorescent staining of HeLa cells with a 1/10 dilution of ab50772 as primary antibody and AlexaFluor®488 conjugated Goat Anti-mouse IgG diluted 1/200 as the secondary antibody



Anti-IRF3 antibody [IRF35I218] (ab50772) at 1/100 dilution + Ripa lysate of Hela cells at 500 µg

Secondary

Anti-mouse IgG at 1/1000 dilution

Predicted band size: 47 kDa

Observed band size: 55 kDa

IRF3 antibody [IRF35I218] (ab50772) at 1/100 dilution + Ripa lysate of Hela cells at 500 µg Secondary Anti-mouse IgG at 1/1000 dilution

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