

Product datasheet

Anti-IRF3 antibody ab245341

[2 Images](#)

Overview

Product name	Anti-IRF3 antibody
Description	Rabbit polyclonal to IRF3
Host species	Rabbit
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Mouse
Immunogen	Synthetic peptide within Mouse IRF3 aa 375-419. The exact sequence is proprietary. NP_058545.1 Database link: P70671
Positive control	WB: Mouse bone marrow dendritic whole cell lysate; NIH/3T3 whole cell lysate. IP: Mouse bone marrow dendritic whole cell lysate.
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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate
Purity	pH 7 to 8 Immunogen affinity purified
Purification notes	ab245341 was affinity purified using an epitope specific to IRF3 immobilized on solid support.
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab245341 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
WB		1/1000 - 1/2500. Predicted molecular weight: 47 kDa.
IP		Use at 2-10 µg/mg of lysate.

Target

Function

Mediates interferon-stimulated response element (ISRE) promoter activation. Functions as a molecular switch for antiviral activity. DsRNA generated during the course of a 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.

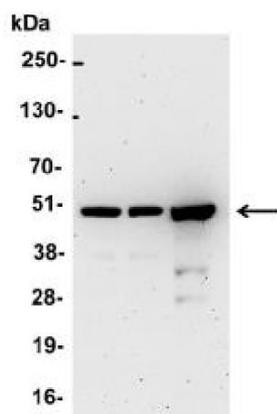
Polyubiquitinated; ubiquitination involves TRIM21 leading to proteasomal degradation.

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 (ab245341)

All lanes : Anti-IRF3 antibody (ab245341) at 0.4 µg/ml

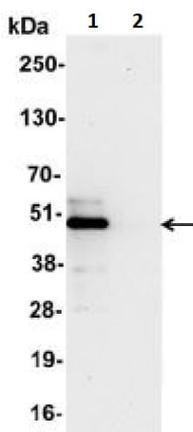
Lane 1 : Mouse bone marrow dendritic whole cell lysate at 50 µg

Lane 2 : Mouse bone marrow dendritic whole cell lysate at 15 µg

Lane 3 : NIH/3T3 (Mouse embryo fibroblast cell line) whole cell lysate at 50 µg

Predicted band size: 47 kDa

Exposure time: 3 minutes



Immunoprecipitation - Anti-IRF3 antibody (ab245341)

IRF was immunoprecipitated from mouse bone marrow dendritic whole cell lysate (1 mg per IP reaction; 20% of IP loaded). ab245341 used for IP at 6 µg/mg lysate. For WB 1 µg/ml.

Lane 1: ab245341 IP in mouse bone marrow dendritic whole cell lysate.

Lane 2: Control IgG IP in mouse bone marrow dendritic whole cell lysate.

Chemiluminescence detection: 30 seconds.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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