abcam

Product datasheet

Anti-IRF3 antibody ab25950

3 Abreviews 36 References 2 Images

Overview

Product name	Anti-IRF3 antibody
Description	Rabbit polyclonal to IRF3
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	A synthetic peptide corresponding to 14 amino acids near the carboxyterminus of IRF3 (Human)
Positive control	WB: Ramos and HT-29 cell lysates.
General notes	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. 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

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: 7.2 Preservative: 0.02% Sodium azide Constituent: 99% PBS
Purity	Immunogen affinity purified
Purification notes	IRF3 Antibody is affinity chromatography purified via peptide column.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab25950 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	★★★★☆ **(2)**	Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 44 kDa (predicted molecular weight: 47 kDa).

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.

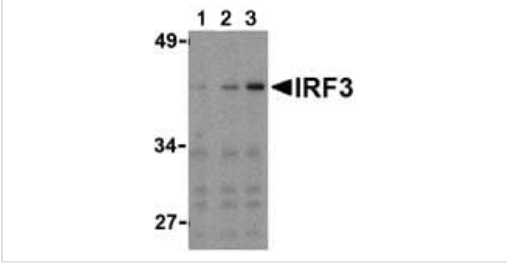
Tissue specificity Expressed constitutively in a variety of tissues.

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 (ab25950)

Lane 1 : Anti-IRF3 antibody (ab25950) at 1 µg/ml

Lane 2 : Anti-IRF3 antibody (ab25950) at 2 µg/ml

Lane 3 : Anti-IRF3 antibody (ab25950) at 4 µg/ml

All lanes : Ramos whole cell lysate.

Predicted band size: 47 kDa

Observed band size: ~44 kDa

Western blot - Anti-IRF3 antibody (ab25950)

This image is courtesy of an anonymous Abreview

Anti-IRF3 antibody (ab25950) at 1/1000 dilution + HT-29 at 30 µg

Secondary

HRP conjugated Anti-rabbit IgG, Goat polyclonal at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 47 kDa

Samples were incubated with primary antibody for 18 hours at 4ºC and blocked with 5% BSA for 1 hour at room temperature.

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