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Anti-Interferon regulatory factor 3 IRF3 Antibody Picoband®

Catalog Number: PA1819

About IRF3

IRF3 (interferon regulatory factor 3) is a member of the interferon regulatory transcription factor (IRF) family. The IRF3 gene is mapped on 19q13.33. IRF3 is found in an inactive cytoplasmic form that upon serine/threonine phosphorylation forms a complex with CREBBP. IRF3 plays an important role in the innate immune system's response to viral infection. Aggregated MAVS have been found to activate IRF3 dimerization. Although IRF3 increased transcriptional activity from an ISRE-containing promoter, expression of IRF3 as a Gal4 fusion protein did not activate expression of a chloramphenicol acetyltransferase (CAT) reporter gene containing repeats of the Gal4-binding sites. Translocation of IRF3 was accompanied by an increase in serine and threonine phosphorylation. The transcriptional activators CREBBP and EP300 coimmunoprecipitated with IRF3 only subsequent to viral infection, and the authors stated that these are also subunits of DRAF1.

Overview

Product Name	Anti-Interferon regulatory factor 3 IRF3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Interferon regulatory factor 3 IRF3 Antibody catalog # PA1819. Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q14653

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human IRF3, different from the related mouse and rat sequences by five amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

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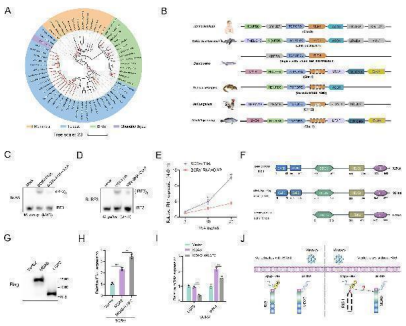
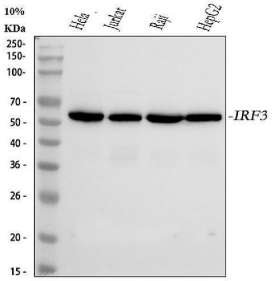
Anti-Interferon regulatory factor 3 IRF3 Antibody Picoband® (PA1819) Images



A genetic compensation response model for RIG loss. (A) Loss of RIG-I in vertebrates. Each branch tip represents one species. Red lines show lineages where loss of RIG-I. The red circle indicates the occurrence of an independent loss event. Branch lengths scale in millions of years (MYA). (B) Comparative analysis of gene synteny of RIG-I in vertebrate genomes. (C and D) SCRV-RNA and VSV-RNA were extracted from SCRV and VSV virus and dephosphorylated them with Calf Intestinal Alkaline Phosphatase (CIAP). Then, MKC cells were transfected with SCRV-RNA and SCRV-RNA +CIAP, and DF-1 cells were transfected with VSV-RNA and VSV-RNA +CIAP. IRF3 dimerization was analyzed by native gel electrophoresis. (E) MKC cells were transfected with different concentrations of SCRV-RNA and SCRV-RNA +CIAP, then the expression of IFN-1 was detected by qRT-PCR. As a control, the expression level of IFN-1 in MKC cells transfected with the same volume of water was set to '1'. (F) Predicted protein structures of MDA5 and LGP2 of M. miiuy and RIG-I of H. sapiens. (G) The expression of MDA5 and LGP2 plasmids of M. miiuy were detected by western Blot. (H) MKC cells were co-transfected with MDA5 plasmids and LGP2 plasmids for 24 hr and then treated with SCRV (MOI = 5) for 24 hr. The expression of IFN-1 was determined by qPCR. (I) MKC cells were co-transfected with MDA5 plasmids and si-LGP2 for 24 hr and then treated with SCRV (MOI = 5) for 24 hr. The expression of LGP2 and IFN-1 was determined by qPCR. (J) A genetic compensation response model for RIG loss. All data presented as the means ± SE from three independent triplicated experiments. **, p



Western blot analysis of IRF3 using anti-IRF3 antibody (PA1819). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human Raji whole cell lysates, Lane 4: human HepG2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IRF3 antigen affinity purified polyclonal antibody (Catalog # PA1819) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for IRF3 at approximately 55 kDa. The expected band size for IRF3 is at 47 kDa.

1 Publications Citing This Product

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1. PubMed ID: 27164829, Curcumin exerts anti-inflammatory and antioxidative properties in 1-methyl-4-phenylpyridinium ion (MPP(+))-stimulated mesencephalic astrocytes by interference with TLR4 and downstream signaling pathway

Visit bosterbio.com/anti-irf3-antibody-pa1819-boster.html to see all 1 publications.

Anti-Interferon regulatory factor 3 IRF3 Antibody

For Research Use Only. Not for use in diagnostic procedures.