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Anti-IRF3 Antibody
Catalog # ABO11127

Specification

Anti-IRF3 Antibody - Product Information

Application	**WB**
Primary Accession	Q14653
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Interferon regulatory factor 3(IRF3) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-IRF3 Antibody - Additional Information

Gene ID 3661

Other Names
Interferon regulatory factor 3, IRF-3, IRF3

Calculated MW
47219 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular 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.

Tissue Specificity
Expressed constitutively in a variety of tissues.

Protein Name
Interferon regulatory factor 3

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human IRF3(409-427aa KAYLQDLVEGMDFQGPGES), different from the related mouse and rat sequences by five amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the IRF family.

Anti-IRF3 Antibody - Protein Information

Name IRF3 {ECO:0000303|PubMed:9803267, ECO:0000312|HGNC:HGNC:6118}

Function
Key transcriptional regulator of type I interferon (IFN)- dependent immune responses which plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:22394562, PubMed:24049179, PubMed:25636800, PubMed:27302953, PubMed:31340999, PubMed:36603579, PubMed:8524823). Regulates the transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes (ISG) by binding to an interferon-stimulated response element (ISRE) in their promoters (PubMed:11846977, PubMed:16846591, PubMed:16979567, PubMed:20049431, PubMed:32972995, PubMed:36603579, PubMed:8524823). Acts as a more potent activator of the IFN-beta (IFNB) gene than the IFN-alpha (IFNA) gene and plays a critical role in both the early and late phases of the IFNA/B gene induction (PubMed:16846591, PubMed:16979567, PubMed:20049431, PubMed:36603579). Found in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, is phosphorylated by IKBKE and TBK1 kinases (PubMed:22394562, PubMed:25636800, PubMed:27302953, PubMed:36603579). This induces a conformational change, leading to its dimerization and nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of the type I IFN and ISG genes (PubMed:16154084, PubMed:27302953, PubMed:33440148, PubMed:<a

href="http://www.uniprot.org/citations/36603579" target="_blank">36603579). Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages (PubMed:16846591). In response to Sendai virus infection, is recruited by TOMM70:HSP90AA1 to mitochondrion and forms an apoptosis complex TOMM70:HSP90AA1:IRF3:BAX inducing apoptosis (PubMed:25609812). Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:33440148).

Cellular Location
Cytoplasm. Nucleus Mitochondrion. Note=Shuttles between cytoplasmic and nuclear compartments, with export being the prevailing effect (PubMed:10805757, PubMed:35922005). When activated, IRF3 interaction with CREBBP prevents its export to the cytoplasm (PubMed:10805757). Recruited to mitochondria via TOMM70:HSP90AA1 upon Sendai virus infection (PubMed:25609812).

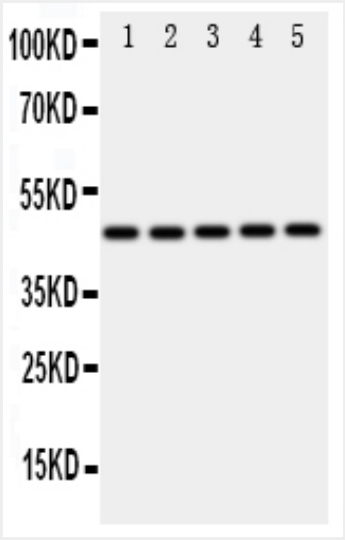
Tissue Location
Expressed constitutively in a variety of tissues.

Anti-IRF3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-IRF3 Antibody - Images



Anti-IRF3 antibody, ABO11127, Western blottingAll lanes: Anti IRF3 (ABO11127) at 0.5ug/mlLane 1: A549 Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: JURKAT Whole

Cell Lysate at 40ugLane 4: 293T Whole Cell Lysate at 40ugLane 5: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 47KDObserved bind size: 47KD

Anti-IRF3 Antibody - Background

IRF3(interferon regulatory factor 3)Â 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 withÂ CREBBP. IRF3 plays an important role in theÂ innate immune system's response toÂ viral infection. AggregatedÂ MAVSÂ have been found to activate IRF3 dimerization. AlthoughÂ IRF3Â increased transcriptional activity from an ISRE-containing promoter, expression ofÂ IRF3Â as a Gal4 fusion protein did not activate expression of a chloramphenicol acetyltransferase(CAT) reporter gene containing repeats of the Gal4-binding sites.Â Translocation ofÂ IRF3Â was accompanied by an increase in serine and threonine phosphorylation.Â The transcriptional activators CREBBP and EP300 coimmunoprecipitated withÂ IRF3Â only subsequent to viral infection, and the authors stated that these are also subunits of DRAF1.