

IRF3 Antibody
Rabbit mAb
Catalog # AP90780**Specification****IRF3 Antibody - Product Information**

Application	WB, IHC, FC, ICC
Primary Accession	Q14653
Reactivity	Rat
Clonality	Monoclonal

Other Names

IRF3; IRF-3; IRF3; Interferon regulatory factor 3;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	47219 Da

IRF3 Antibody - Additional Information

Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human IRF3
Description	IRFs comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection. IRF-3 can inhibit cell growth and plays a critical role in controlling the expression of genes in the innate immune response.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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:24049179).

[25636800](http://www.uniprot.org/citations/25636800), PubMed: [27302953](http://www.uniprot.org/citations/27302953), PubMed: [31340999](http://www.uniprot.org/citations/31340999), PubMed: [36603579](http://www.uniprot.org/citations/36603579), PubMed: [8524823](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11846977), PubMed: [16846591](http://www.uniprot.org/citations/16846591), PubMed: [16979567](http://www.uniprot.org/citations/16979567), PubMed: [20049431](http://www.uniprot.org/citations/20049431), PubMed: [32972995](http://www.uniprot.org/citations/32972995), PubMed: [36603579](http://www.uniprot.org/citations/36603579), PubMed: [8524823](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16846591), PubMed: [16979567](http://www.uniprot.org/citations/16979567), PubMed: [20049431](http://www.uniprot.org/citations/20049431), PubMed: [36603579](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/22394562), PubMed: [25636800](http://www.uniprot.org/citations/25636800), PubMed: [27302953](http://www.uniprot.org/citations/27302953), PubMed: [36603579](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16154084), PubMed: [27302953](http://www.uniprot.org/citations/27302953), PubMed: [33440148](http://www.uniprot.org/citations/33440148), PubMed: [36603579](http://www.uniprot.org/citations/36603579)). Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages (PubMed: [16846591](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/25609812)). Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed: [33440148](http://www.uniprot.org/citations/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

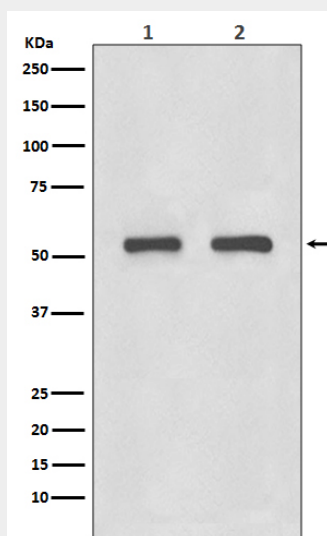
Expressed constitutively in a variety of tissues.

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 Cytometry](#)
- [Cell Culture](#)

IRF3 Antibody - Images



Western blot analysis of IRF3 expression in (1) HeLa cell lysate; (2) 3T3 cell lysate.