

# IRF3 Antibody

Rabbit mAb

Catalog # AP90780

## Product Information

---

<b>Application</b>	WB, IHC, IF, FC, ICC, IHF
<b>Primary Accession</b>	<a href="#">Q14653</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	IRF3; IRF-3; IRF3; Interferon regulatory factor 3;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	47219

## Additional Information

---

<b>Dilution</b>	WB 1:500~1:1000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:100
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human IRF3
<b>Description</b>	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.
<b>Storage Condition and Buffer</b>	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.

## Protein Information

---

<b>Name</b>	IRF3 {ECO:0000303   PubMed:9803267, ECO:0000312   HGNC:HGNC:6118}
<b>Function</b>	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: <a href="#">22394562</a> , PubMed: <a href="#">24049179</a> , PubMed: <a href="#">25636800</a> , PubMed: <a href="#">27302953</a> , PubMed: <a href="#">31340999</a> , PubMed: <a href="#">36603579</a> , PubMed: <a href="#">8524823</a> , PubMed: <a href="#">39362857</a> ). 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: <a href="#">11846977</a> , PubMed: <a href="#">16846591</a> , PubMed: <a href="#">16979567</a> , PubMed: <a href="#">20049431</a> , PubMed: <a href="#">32972995</a> , PubMed: <a href="#">36603579</a> , PubMed: <a href="#">8524823</a> ). 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: <a href="#">16846591</a> , PubMed: <a href="#">16979567</a> , PubMed: <a href="#">20049431</a> , PubMed: <a href="#">36603579</a> ). 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 IKKε 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: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).

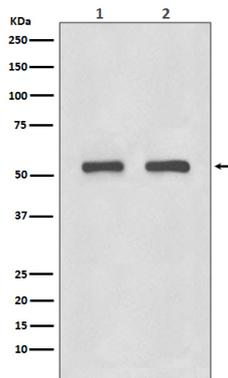
### Cellular Location

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.

## Images



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

Image not found : 202311/AP90780-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human cervix carcinoma, using IRF3 Antibody.

Image not found : 202311/AP90780-IF.jpg

Immunofluorescent analysis of Jurkat cells, using IRF3 Antibody.

Image not found : 202311/AP90780-wb6.jpg

SOD2 Facilitates the Antiviral Innate Immune Response by Scavenging Reactive Oxygen Species. -Viral Immunology

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.