

IRF3 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS11275**Specification**

IRF3 Antibody (Internal) - Product Information

Application	ICC, IF, IHC
Primary Accession	Q14653
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47kDa KDa

IRF3 Antibody (Internal) - Additional Information**Gene ID** 3661**Other Names**

Interferon regulatory factor 3, IRF-3, IRF3

Target/Specificity

peptide corresponding to 14 amino acids near the center of human IRF3

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

IRF3 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

IRF3 Antibody (Internal) - 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:16846591, PubMed:16846591).

[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 (DRAFI), 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.

Volume

50 µl

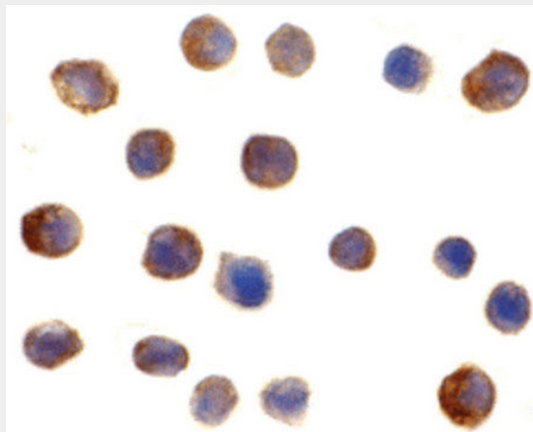
IRF3 Antibody (Internal) - Protocols

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

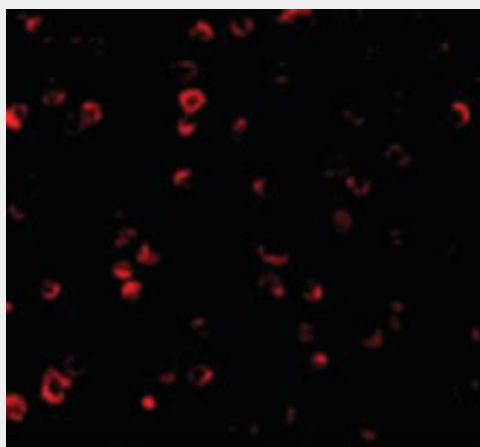
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

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

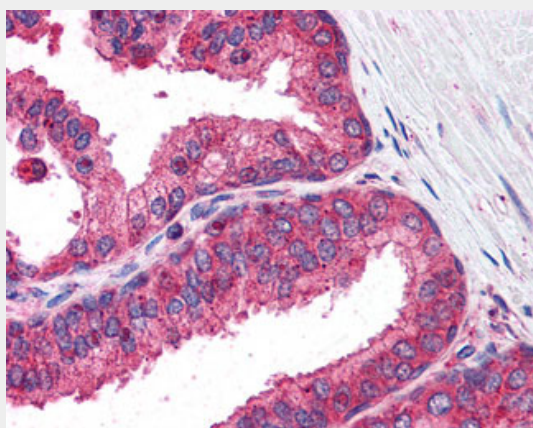
IRF3 Antibody (Internal) - Images



Immunocytochemistry of IRF3 in Ramos cells with IRF3 antibody at 2 ug/ml.



Immunofluorescence of IRF3 in Ramos cells with IRF3 antibody at 2 ug/ml.



Anti-IRF3 antibody IHC of human prostate.

IRF3 Antibody (Internal) - Background

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. 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. 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. 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. 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 (DRAFI), a complex which activates the transcription of the type I IFN and ISG genes. Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages.

IRF3 Antibody (Internal) - References

Au W.W.-C., et al. Proc. Natl. Acad. Sci. U.S.A. 92:11657-11661(1995).
Tabata Y., et al. Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
Ota T., et al. Nat. Genet. 36:40-45(2004).
Grimwood J., et al. Nature 428:529-535(2004).
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.