

# IRF-3 (phospho Ser385) Polyclonal Antibody

Catalog # AP67812

## Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	<a href="#">Q14653</a>
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47219

## Additional Information

Gene ID	3661
Other Names	IRF3; Interferon regulatory factor 3; IRF-3
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## 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: <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> ). 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: <a href="#">22394562</a> , PubMed: <a href="#">25636800</a> , PubMed: <a href="#">27302953</a> , PubMed: <a href="#">36603579</a> ). 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).

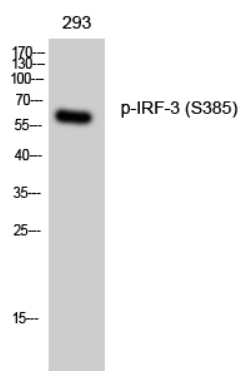
#### Tissue Location

Expressed constitutively in a variety of tissues.

## 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 IKBKE 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 (DRAF1), 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.

## Images



Western Blot analysis of 293 cells using Phospho-IRF-3 (S385) Polyclonal Antibody

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