

**IRF7 Antibody (aa1-150, clone 3D9)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12561****Specification**

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**IRF7 Antibody (aa1-150, clone 3D9) - Product Information**

Application	<b>IHC, WB</b>
Primary Accession	<a href="#">O92985</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Calculated MW	<b>54kDa KDa</b>

**IRF7 Antibody (aa1-150, clone 3D9) - Additional Information****Gene ID** 3665**Other Names**

Interferon regulatory factor 7, IRF-7, IRF7

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

IRF7 Antibody (aa1-150, clone 3D9) is for research use only and not for use in diagnostic or therapeutic procedures.

**IRF7 Antibody (aa1-150, clone 3D9) - Protein Information****Name** IRF7**Function**

Key transcriptional regulator of type I interferon (IFN)- dependent immune responses and plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:<a href="http://www.uniprot.org/citations/28342865" target="\_blank">28342865</a>, PubMed:<a href="http://www.uniprot.org/citations/28768858" target="\_blank">28768858</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="http://www.uniprot.org/citations/17574024" target="\_blank">17574024</a>, PubMed:<a href="http://www.uniprot.org/citations/32972995" target="\_blank">32972995</a>). Can efficiently activate both the IFN-beta (IFNB) and the IFN-alpha (IFNA) genes and mediate their induction via both the virus-activated, MyD88-independent pathway and the TLR-activated, MyD88-dependent pathway. Induces transcription of ubiquitin hydrolase USP25 mRNA in response to lipopolysaccharide (LPS) or viral infection in a type I IFN-dependent manner (By similarity). Required during both the early and late phases of the IFN gene induction but is more critical for the late than for the early phase. Exists in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, becomes phosphorylated by IKKε and TBK1 kinases. This induces a conformational change,

leading to its dimerization and nuclear localization where along with other coactivators it can activate transcription of the type I IFN and ISG genes. Can also play a role in regulating adaptive immune responses by inducing PSMB9/LMP2 expression, either directly or through induction of IRF1. Binds to the Q promoter (Qp) of EBV nuclear antigen 1 a (EBNA1) and may play a role in the regulation of EBV latency. Can activate distinct gene expression programs in macrophages and regulate the anti- tumor properties of primary macrophages (By similarity) (PubMed:<a href="http://www.uniprot.org/citations/11073981" target="\_blank">11073981</a>, PubMed:<a href="http://www.uniprot.org/citations/12374802" target="\_blank">12374802</a>, PubMed:<a href="http://www.uniprot.org/citations/15361868" target="\_blank">15361868</a>, PubMed:<a href="http://www.uniprot.org/citations/17404045" target="\_blank">17404045</a>).

#### Cellular Location

Nucleus. Cytoplasm. Note=The phosphorylated and active form accumulates selectively in the nucleus

#### Tissue Location

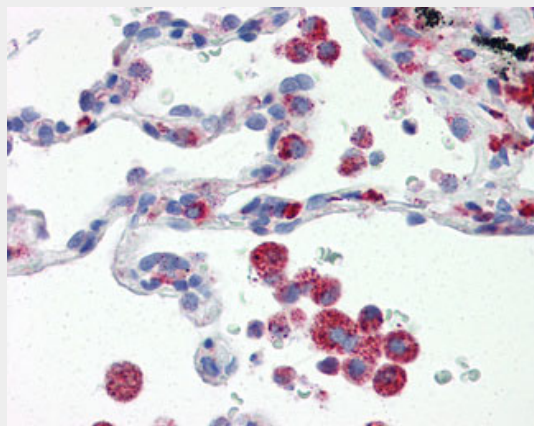
Expressed predominantly in spleen, thymus and peripheral blood leukocytes

#### IRF7 Antibody (aa1-150, clone 3D9) - Protocols

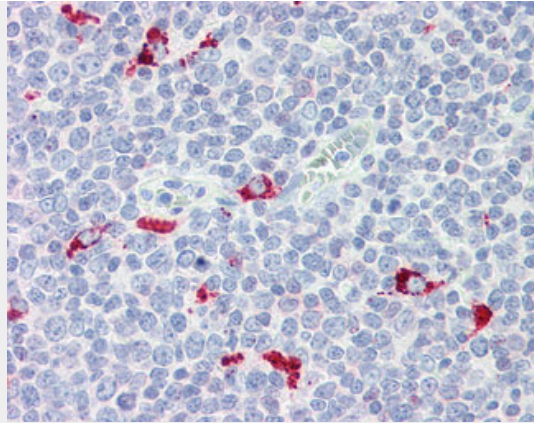
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

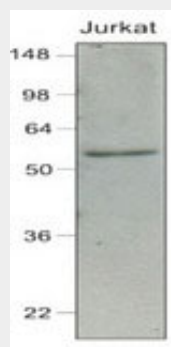
#### IRF7 Antibody (aa1-150, clone 3D9) - Images



Anti-IRF7 antibody IHC of human lung.



Anti-IRF7 antibody IHC of human tonsil.



Cell lysates of Jurkat (40 ug) were resolved by SDS-PAGE, transferred to NC membrane and probed...

### **IRF7 Antibody (aa1-150, clone 3D9) - Background**

Key transcriptional regulator of type I interferon (IFN)-dependent immune responses and 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. Can efficiently activate both the IFN-beta (IFNB) and the IFN-alpha (IFNA) genes and mediate their induction via both the virus-activated, MyD88-independent pathway and the TLR-activated, MyD88-dependent pathway. Required during both the early and late phases of the IFN gene induction but is more critical for the late than for the early phase. Exists in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, becomes phosphorylated by IKBKE and TBK1 kinases. This induces a conformational change, leading to its dimerization and nuclear localization where along with other coactivators it can activate transcription of the type I IFN and ISG genes. Can also play a role in regulating adaptive immune responses by inducing PSMB9/LMP2 expression, either directly or through induction of IRF1. Binds to the Q promoter (Qp) of EBV nuclear antigen 1 a (EBNA1) and may play a role in the regulation of EBV latency. Can activate distinct gene expression programs in macrophages and regulate the anti-tumor properties of primary macrophages.

### **IRF7 Antibody (aa1-150, clone 3D9) - References**

Grossman A., et al. Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.  
Zhang L., et al. Mol. Cell. Biol. 17:5748-5757(1997).  
Au W.-C., et al. J. Biol. Chem. 273:29210-29217(1998).  
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.  
Marie I.J., et al. Mol. Cell. Biol. 20:8803-8814(2000).