

IRF7 Antibody (Internal) Rabbit Polyclonal Antibody Catalog # ALS11694

Specification

IRF7 Antibody (Internal) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW Dilution WB, IHC-P <u>092985</u> Human Rabbit Polyclonal 54kDa KDa WB~~1:1000 IHC-P~~N/A

IRF7 Antibody (Internal) - Additional Information

Gene ID 3665

Other Names Interferon regulatory factor 7, IRF-7, IRF7

Target/Specificity peptide corresponding to 14 amino acids near the center of human IRF7

Reconstitution & Storage

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

Precautions IRF7 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

IRF7 Antibody (Internal) - 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:28342865, PubMed:28768858). 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:17574024, PubMed:17574024, PubMed:32972995). 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 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 (By similarity) (PubMed:11073981, PubMed:11073981, PubMed:15361868, PubMed:17404045).

Cellular Location

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

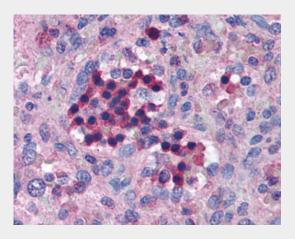
Tissue Location

Expressed predominantly in spleen, thymus and peripheral blood leukocytes

IRF7 Antibody (Internal) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>
- IRF7 Antibody (Internal) Images



Anti-IRF7 antibody IHC of human spleen. IRF7 Antibody (Internal) - 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 (Internal) - 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).