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IRF7 Rabbit mAb

Catalog # AP76279

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	Q92985
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	54278

Additional Information

Gene ID	3665
Other Names	IRF7
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:50-1:100 IP~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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: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:12374802, PubMed:15361868, PubMed:17404045).

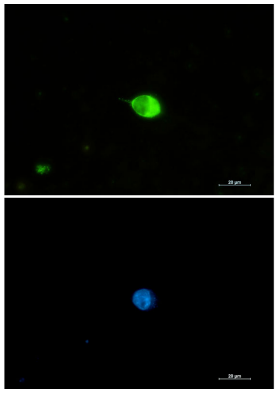
Cellular Location Nucleus. Cytoplasm. Note=The phosphorylated and active form accumulates selectively in the nucleus

Tissue Location Expressed predominantly in spleen, thymus and peripheral blood leukocytes

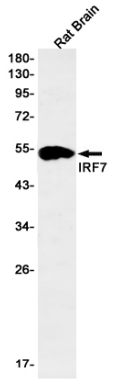
Background

This gene encodes interferon regulatory factor 7, a member of the interferon regulatory transcription factor (IRF) family. It has been shown to play a role in the transcriptional activation of virus-inducible cellular genes, including interferon beta chain genes. Inducible expression of IRF7 is largely restricted to lymphoid tissue. The encoded protein plays an important role in the innate immune response against DNA and RNA viruses.

Images

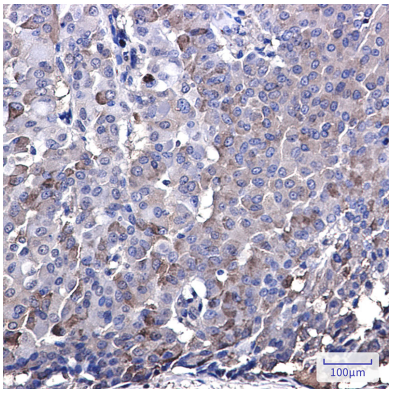


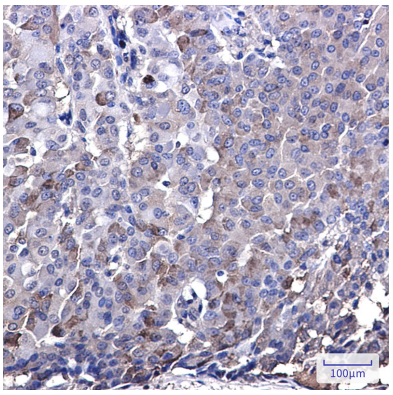
Immunocytochemistry analysis of IRF7 (green) in 293 using IRF7 antibody,and DAPI(blue).

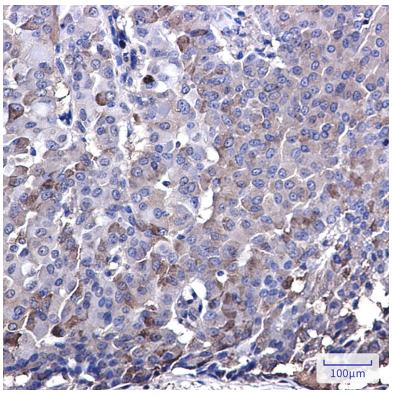


Western blot analysis of IRF7 in rat Brain lysates using IRF7 antibody.

Immunohistochemistry analysis of paraffin-embedded Human breast cancer tissue using IRF7 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.







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