

Rabbit IRF7 Polyclonal Antibody | anti-IRF7 antibody

Phospho-IRF7 (Ser477) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31458	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

IRF7; Polyclonal Antibody; Phospho-IRF7 (Ser477) Antibody; IMD39; Interferon regulatory factor 7; Interferon regulatory factor 7H; IRF 7; IRF 7A; IRF 7H; IRF-7; IRF7_HUMAN; IRF7A; IRF7B; IRF7C; IRF7H; anti-IRF7 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-IRF7 (Ser477) Antibody detects endogenous levels of IRF7 only when phosphorylated at Ser477. Tissue Specificity: Expressed predominantly in spleen, thymus and peripheral blood leukocytes.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-IRF7 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-3000 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human IRF7 around the phosphorylation site of Ser477.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Acetylation inhibits its DNA-binding ability and activity. In response to a viral infection, phosphorylated on Ser-477 and Ser-479 by TBK1 and IKKε. Phosphorylation, and subsequent activation is inhibited by vaccinia virus protein E3. In TLR7- and TLR9-mediated signaling pathway, phosphorylated by IRAK1. TRAF6-mediated ubiquitination is required for IRF7 activation. Sumoylated by TRIM28, which inhibits its transactivation activity. (Microbial infection) Cleaved and inactivated by the protease 3C of enterovirus 71 allowing the virus to disrupt the host type I interferon production. (Microbial infection) Cleaved and inactivated by the protease 3C of human enterovirus 68D (EV68) allowing the virus to disrupt the host type I interferon production.
Subunit Structure	Monomer. Homodimer; phosphorylation-induced. Heterodimer with IRF3. Interacts with TICAM1 and TICAM2. Interacts with MYD88 AND TRAF6. (Microbial infection) Interacts with Epstein-Barr virus LF2 and LMP1. (Microbial infection) Interacts with rotavirus A NSP1; this interaction leads to the proteasome-dependent degradation of IRF7. (Microbial infection) Interacts with human herpes virus 8/HHV-8 proteins ORF45 and vIRF-1. (Microbial infection) Interacts with human T-cell leukemia virus 1/HTLV-1 protein HBZ. (Microbial infection) Interacts with Seneca Valley virus protease 3C; this interaction is involved in the suppression of IRF7 expression and phosphorylation by the virus.

Similarity	Belongs to the IRF family.
Subcellular Location	Nucleus. Cytoplasm. Note: The phosphorylated and active form accumulates selectively in the nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Rat spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human mammary cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human mammary cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human lung cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
Staining Rat testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-IRF7 antibody	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. 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758610
NCBI GeneID	3665

NCBI Accession #	NP_001563.2
NCBI GenBank Nucleotide #	NM_001572.3
UniProt Accession #	Q92985 ; O00331 ; O00332 ; O00333 ; O75924 ; Q9UE79 ; B9EGL3
Molecular Weight	51-56kDa
NCBI Official Full Name	interferon regulatory factor 7 isoform a
NCBI Official Synonym Full Names	interferon regulatory factor 7
NCBI Official Symbol	IRF7
NCBI Official Synonym Symbols	IRF7A; IRF7B; IRF7C; IRF7H; IRF-7H
NCBI Protein Information	interferon regulatory factor 7; IRF-7; interferon regulatory factor-7H
UniProt Protein Name	Interferon regulatory factor 7
UniProt Gene Name	IRF7
UniProt Synonym Gene Names	IRF-7
UniProt Entry Name	IRF7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/irf7-antibody-western-blot-immunohistochemistry-peptide-elisa-elisa/31458>