

Rabbit IRF3 Polyclonal Antibody | anti-IRF3 antibody

IRF3 Antibody

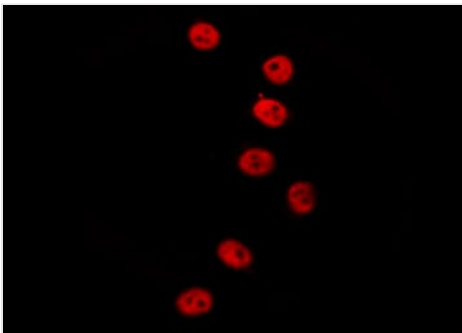
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326650	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

IRF3; Polyclonal Antibody; IRF3 Antibody; IIAE7; Interferon regulatory factor 3; IRF 3; IRF-3; IRF3_HUMAN; MGC94729; anti-IRF3 antibody

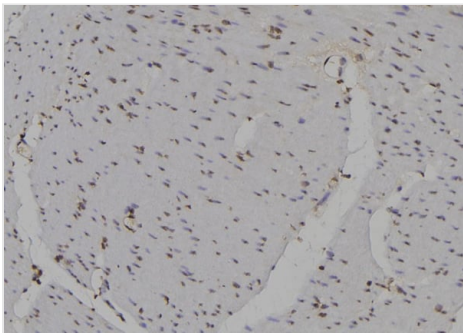
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	IRF3 antibody detects endogenous levels of total IRF3
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	452
Applicable Applications for anti-IRF3 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human IRF3
Subcellular Location	Cytoplasm. Nucleus. Shuttles between cytoplasmic and nuclear compartments, with export being the prevailing effect. When activated, IRF3 interaction with CREBBP prevents its export to the cytoplasm.
Tissue Specificity	Expressed constitutively in a variety of tissues.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



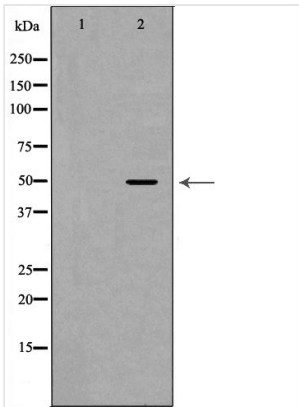
IF (Immunofluorescence)

AAA326650 staining HT29 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326650 at 1/100 staining Human gastric 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 antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts of brain, using IRF3 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-IRF3 antibody	Description: Interferon regulatory factors (IRFs) comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection (1). IRFs play an important role in pathogen defense, autoimmunity, lymphocyte development, cell growth, and susceptibility to transformation. The IRF family includes nine members: IRF-1, IRF-2, ISGF3gamma/p48, IRF-3, IRF-4 (Pip/LSIRF/ICSAT), IRF-5, IRF-6, IRF-7, and IRF-8/ICSBP. All IRF proteins share homology in their amino-terminal DNA-binding domains. IRF family members regulate transcription through interactions with proteins that share similar DNA-binding motifs, such as IFN-stimulated response elements (ISRE), IFN consensus sequences (ICS), and IFN regulatory elements (IRF-E) (2). IRF-3 can inhibit cell growth and plays a critical role in controlling the expression of genes in the innate immune response (1-4). In unstimulated cells, IRF-3 is present in the cytoplasm. Viral infection results in phosphorylation of IRF-3 and leads to its translocation to the nucleus where it activates promoters containing IRF-3-binding sites. Phosphorylation of IRF-3 occurs at a cluster of C-terminal Ser and Thr residues (between 385 and 405), leading to its association with the p300/CBP coactivator protein that promotes DNA binding and transcriptional activity (5). During infection, IRF-3 is likely activated through a pathway that includes activation of Toll-like receptors and a kinase complex that includes IKKepsilon and TBK1 (6, 7). IRF-3 is phosphorylated at Ser396 following viral infection, expression of viral nucleocapsid, and double-stranded RNA treatment. These events likely play a role in activation of IRF-3 (8). 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. 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 (DRAFI), 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. Subunit Structure: Monomer. Homodimer; phosphorylation-induced. Heterodimer with IRF7. Interacts with CREBBP. May interact with MAVS. Interacts with IKBKE and TBK1. Interacts with TICAM1 and TICAM2. Interacts with RBCK1. Interacts with HERC5. Interacts with DDX3X (phosphorylated at 'Ser-102'); the interaction allows the phosphorylation and activation of IRF3 by IKBKE. Interacts with TRIM21 and ULK1, in the presence of TRIM21; this interaction leads to IRF3 degradation by autophagy (PubMed:26347139). Interacts with RIOK3; RIOK3 probably mediates the interaction of TBK1 with IRF3. Post-translational Modifications: Constitutively phosphorylated on many Ser/Thr residues. C-terminal serine/threonine cluster is phosphorylated in response of induction by IKBKE and TBK1. Phosphorylated at Ser-396 by IKBKE upon ssRNA viral infection. Ser-385 and Ser-386 may be specifically phosphorylated in response to induction. Phosphorylation at Ser-386 by TBK1 results in oligomerization. An alternate model propose that the five serine/threonine residues between 396 and 405 are phosphorylated in response to a viral infection. (Microbial infection) Phosphorylation and subsequent activation of IRF3 is inhibited by vaccinia virus protein E3. Ubiquitinated; ubiquitination involves RBCK1 leading to proteasomal degradation. Polyubiquitinated; ubiquitination involves TRIM21 leading to proteasomal degradation. ISGylated by HERC5 resulting in sustained IRF3 activation and in the inhibition of IRF3 ubiquitination by disrupting PIN1 binding. The phosphorylation state of IRF3 does not alter ISGylation. Similarity: Belongs to the IRF family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	308199446
NCBI GeneID	3661
NCBI Accession #	NP_001184051.1
NCBI GenBank Nucleotide #	NM_001197122.1
UniProt Accession #	Q14653; Q5FBY1; Q5FBY2; Q5FBY4; Q7Z5G6; A8K7L2; B2RAZ3
Molecular Weight	Observed: 49 kDa Predicted: 48 kDa
NCBI Official Full Name	interferon regulatory factor 3 isoform 2

NCBI Official Synonym Full Names	interferon regulatory factor 3
NCBI Official Symbol	IRF3
NCBI Official Synonym Symbols	IIAE7
NCBI Protein Information	interferon regulatory factor 3
UniProt Protein Name	Interferon regulatory factor 3
UniProt Gene Name	IRF3
UniProt Synonym Gene Names	IRF-3

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/irf3-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326650>