

## IRF3 Antibody

*IRF3 (CT): Interferon regulatory factor 3*

**CATALOG No.:** 3397

### BACKGROUND:

Interferons (IFN)s are involved in a multitude of immune interactions during viral infections and play a major role in both the induction and regulation of innate and adaptive antiviral mechanisms (1 for review). During infection, host-virus interactions signal downstream molecules such as transcription factors such as IFN regulatory factor-3 (IRF3) which can act to stimulate transcription of IFN- $\alpha/\beta$  genes. IRF3 is present in an inactive form in the cytoplasm of most cells (2). Following viral infection, IRF3 can be activated by I $\kappa$ B kinase- $\epsilon$  and TANK-binding kinase 1 (TBK1) (3,4), whereupon IRF3 translocates to the nucleus. IRF3 can also be activated by stimulation of toll-like receptor 3 (TLR3) by dsRNA (3,5). IRF3 exists as at least two distinct isoforms.

### SOURCE:

Rabbit polyclonal IRF3 antibody was raised against a peptide corresponding to 14 amino acids near the carboxy-terminus of human IRF3 (GenBank accession no. NP\_001562). IRF3 antibody is human and mouse reactive.

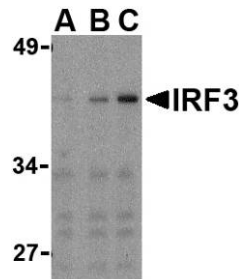
### APPLICATION:

IRF3 antibody can be used for detection of IRF3 by Western blot at 1 - 2  $\mu$ g/ml. (Optimal dilution should be determined by user.) Whole cell lysate from Ramos cells can be used as positive control.

**For research use only.**

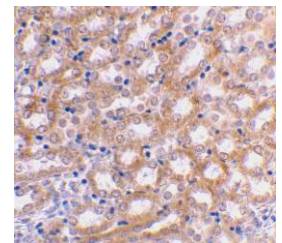
### STORAGE:

IRF3 antibody is supplied as immunoaffinity chromatography purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of IRF3 in Ramos whole cell lysate with IRF3 antibody at (A) 1, (B) 2, and (C) 4  $\mu$ g/ml.

Immunohistochemical staining of mouse kidney using IRF3 antibody at 2  $\mu$ g/ml.



### RELATED PRODUCTS:

Blocking peptide, Catalog No. **3397P**.  
Ramos Cell Lysate, Catalog No. **1225**.  
IRF3 Antibody (IN), Catalog No. **3399**.  
IRF8 Antibody, Catalog No. **3401**.  
IKK $\epsilon$  Antibody, Catalog No. **2329**.  
NAK/TBK1 Antibody, Catalog No. **2351**.

### REFERENCES:

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2. Au WC, Moore PA, Lowther W, et al. Identification of a member of the interferon regulatory factor family that binds to the interferon-stimulated response element and activates expression of interferon-induced genes. *Proc. Natl. Acad. Sci. USA* 1995; 92:11657-61.
3. Fitzgerald KA, McWhirter SM, Faia KL, et al. IKKepsilon and TBK1 are essential components of the IRF3 signaling pathway. *Nat. Immunol.* 2003; 4:491-6.
4. Sharma S, Tenoever BR, Grandvaux N, et al. Triggering the interferon antiviral response through an IKK-related pathway. *Science* 2003; 300:1148-51.
5. Takeda K, Kaisho T, and Akira S. Toll-like receptors. *Annu. Rev. Immunol.* 2003; 21:335-76.  
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