



Qty: 100 µg/200 µL

Mouse anti-IRF3

Catalog No. 39-2700

Lot No.

Mouse anti-IRF3

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: 17C2

ISOTYPE: Mouse IgG_{2a}

IMMUNOGEN

Recombinant protein derived from the C-terminal region of the human IRF3 (interferon regulatory factor 3) protein

SPECIFICITY

This antibody is specific for the IRF3 protein. On Western blots, it identifies the target band at ~55 kDa.

REACTIVITY

Reactivity has been confirmed with IRF3-transfected 293T cell lysates.

| Sample | ELISA | Immuno-fluorescence | Western Blotting |
|-----------|-------|---------------------|------------------|
| Human | +++ | +++ | +++ |
| Immunogen | +++ | ND | +++ |

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunofluorescence: 3-5 µg/mL

Western Blotting: 1-3 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI392700

(Rev 10/08) DCC-08-1089

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BACKGROUND

Interferons (IFNs) are a large family of multifunctional secreted proteins involved in antiviral defense, cell growth regulation and immune activation. Viral infection induces transcription of multiple IFN genes, a response that is in part mediated by the interferon regulatory factors (IRFs)¹. Interferon regulatory factors (IRFs) constitute a family of transcription factors that commonly possess a novel helix-turn-helix DNA-binding motif. Following the initial identification of two structurally related members, IRF1 and IRF2, seven additional members have now been reported².

Interferon regulatory factor-3 (IRF3) is a unique member of the IRF family. Its transcriptional activity is regulated solely by post-translational modifications. IRF3 is expressed constitutively in a variety of tissue. Following virus infection, IRF3 is post-translationally modified by protein phosphorylation at multiple serine and threonine residues, located in the C-terminus of IRF3. Phosphorylation causes the cytoplasmic to nuclear translocation of IRF3, stimulation of DNA binding, and increased transcriptional activity, mediated through the association of IRF3 with the CBP/p300 coactivator³⁻⁵. Recently, the range of inducers responsible for IRF3 activation has increased, indicating that IRF3 plays an important role in biological processes such as pathogen response, cytokine signaling, cell growth regulation and hematopoietic development^{1,5,6}.

REFERENCES

1. Mamane Y, et al. *Gene* 237(1):1-14, 1999.
2. Taniguchi T, et al. *Annu Rev Immunol* 19:623-655, 2001.
3. Spiegel M, et al. *J Virol* 79(4):2079-2086, 2005.
4. Yoneyama M, et al. *J Interferon Cytokine Res* 22(1):73-76, 2002.
5. Hiscott J, et al. *J Interferon Cytokine Res* 19(1):1-13, 1999.
6. Servant MJ, et al. *Biochem Pharmacol* 64(5-6):985-992, 2002.

RELATED PRODUCTS

| Product | Conjugate | Cat. No. |
|----------------|---------------------------|-----------------|
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| rec-Protein G | Sepharose [®] 4B | 10-1241 |

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|-------------------|--|---|
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