

IRF-9 (D2T8M) Rabbit mAb

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Applications: W, IP, IF-IC, ChIP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 48	Source/Isotype: Rabbit IgG	UniProt ID: #Q00978	Entrez-Gene Id: 10379
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Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (Immunocytochemistry)	1:3200
Chromatin IP	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

IRF-9 (D2T8M) Rabbit mAb recognizes endogenous levels of total IRF-9 protein. This antibody also cross-reacts with an unidentified protein of 95 kDa. Non-specific nucleolar background has been observed by immunofluorescence in some cultured cell lines.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to human IRF-9 protein.

Background

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, IRF-9/ISGF3γ, 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).

In response to type I interferons (e.g., IFN-α, IFN-β), interferon regulatory factor 9 (IRF-9, ISGF3γ) assembles into a protein complex with Stat1 and Stat2 and translocates to the nucleus where it induces transcription of interferon response genes by binding to ISREs (3,4). Expression of IRF-9 is also induced by type I interferons (5).

Background References

1. Taniguchi, T. et al. (2001) *Annu Rev Immunol* 19, 623-55.
2. Honda, K. and Taniguchi, T. (2006) *Nat Rev Immunol* 6, 644-58.
3. Fu, X.Y. et al. (1990) *Proc Natl Acad Sci U S A* 87, 8555-9.
4. Qureshi, S.A. et al. (1995) *Proc Natl Acad Sci U S A* 92, 3829-33.
5. Levy, D.E. et al. (1990) *EMBO J* 9, 1105-11.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)
ChIP: Chromatin IP

Cross-Reactivity Key

H: Human

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