

Go-ChIP-Grade™ Purified anti-IRF9 Antibody

Catalog# / Size	660703 / 25 µg 660704 / 100 µg
Clone	5A3A39
Regulatory Status	RUO
Other Names	Interferon regulatory factor 9 (IRF-9), Interferon-stimulated gene factor 3 gamma (ISGF-3 gamma), ISGF3 p48 subunit
Isotype	Mouse IgG2b, κ
Description	IRF9 is a member of the IRF family of transcription factors and plays an important role in IFN signaling pathways and anti-viral immune responses. Type I and type III interferon stimulation induces phosphorylation and heterodimerization of STAT1 and STAT2. The activated STAT1:STAT2 heterodimer recruits IRF9 and forms a heterotrimeric complex termed IFN-stimulated gene factor 3 (ISGF3). The ISGF3 complex, in turn, translocates to the nucleus and transactivates IFN-inducible genes. The IRF9 protein in the ISGF3 complex is responsible for the recognition of IFN-stimulated response elements (ISRE). Mice lacking IRF9 fail to induce the expression of IFN regulated genes in response to type I interferon stimulation, indicating that IRF9 is crucial in mediating interferon signaling.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial human IRF9 recombinant protein (116-387 a.a.) expressed in <i>E. coli</i> .
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	ChIP - Quality tested WB, ICC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by ChIP Assay. The suggested dilution for ChIP application is 1-50 to 1-200 by volume. For Western blotting, the suggested use of this reagent is 0.4 - 2.5 µg per mL. It is recommended that the reagent to be titrated for optimal performance before each experiment.
Application Notes	This clone does not react with mouse (in-house tested). A non-specific band was observed (around 37 kD) when this antibody was tested on Raw264.7 cells
RRID	AB_2721591 (BioLegend Cat. No. 660703) AB_2721592 (BioLegend Cat. No. 660704)

Antigen Details

Structure	393 amino acids, predicted molecular weight of 44 kD; contains a IRF tryptophan pentad repeat responsible for DNA binding.
Distribution	Cytoplasm, phosphorylated form translocated to the nucleus.
Function	IRF9 is a transcription factor that mediates interferon signaling and activates the expression of interferon inducible genes.

Interaction	Forms the interferon-stimulated gene factor 3 complex (ISGF3) with Signal Transducer and Activator of Transcription 1 (STAT1) and STAT2 in response to type I IFN stimulation.
Biology Area	Cell Biology, Immunology, Innate Immunity, Signal Transduction, Transcription Factors
Molecular Family	Nuclear Markers
Antigen References	<ol style="list-style-type: none"> 1. Fink K and Grandvaux N, 2013. <i>JAKSTAT</i>. 2:e27521. 2. Tsuno T, <i>et al.</i> 2009. <i>J. Immunother.</i> 32:803. 3. Thibault DL, <i>et al.</i> 2008. <i>J. Clin. Invest.</i> 118:1417. 4. Kraus TA, <i>et al.</i> 2003. <i>J. Biol. Chem.</i> 278:13033. 5. Xiao W, <i>et al.</i> 2001. <i>J. Biol. Chem.</i> 276:23275. 6. Veals SA, <i>et al.</i> 1992. <i>Mol. Cell. Biol.</i> 12:3315.
Gene ID	10379

Related Protocols

[BioLegend's Tools for Chromatin Immunoprecipitation \(ChIP\) Assays - Video](#)

[Chromatin Immunoprecipitation \(ChIP\) Assay Protocol](#)

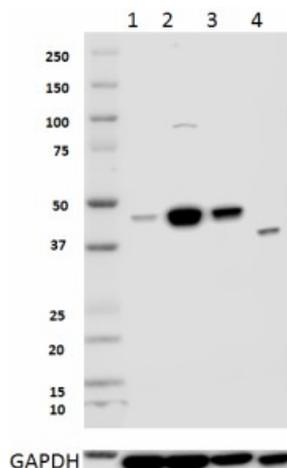
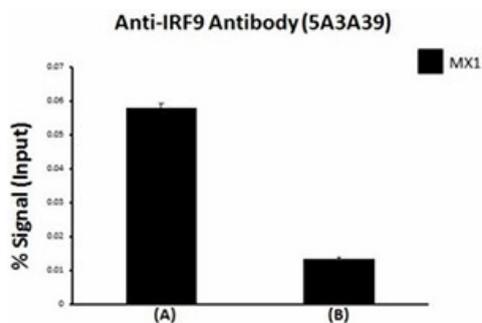
[Immunocytochemistry Staining Protocol](#)

[Western Blotting Protocol](#)

Other Formats

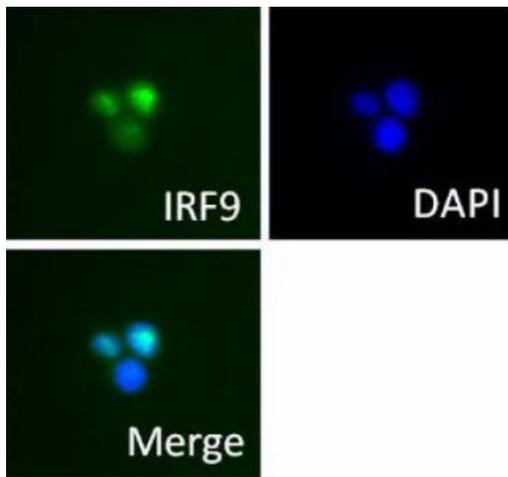
Purified anti-IRF9, Go-ChIP-Grade™ Purified anti-IRF9

Product Data



Chromatin Immunoprecipitation (ChIP) was performed using commercial Protein-G coated 96 well high-throughput ChIP assay kit by loading 3 μ g of cross-linked chromatin samples from THP-1 cells treated with IFN α 2 with either A) 1:50 dilution of Go-ChIP-Grade™ Purified anti-IRF9 (Clone 5A3A39), or B) equal amount of Purified Mouse IgG2b, κ Isotype Control Antibody. The enriched DNA was purified and quantified by real-time qPCR using primers targeting human MX1 gene region. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the 5% of total amount of input chromatin.

Total lysates (15 μ g protein) from Jurkat (lane 1), Jurkat treated with IFN α 1 (lane 2), THP-1 (lane 3) and Raw264.7 cells (lane 4) were resolved by electrophoresis (4-20% Tris-Glycine gel), transferred to nitrocellulose, and probed with 1:1250 diluted (0.4 μ g/mL) Purified anti-IRF9 Antibody, clone 5A3A39 (upper). Proteins were visualized by chemiluminescence detection using a 1:3000 diluted goat anti-mouse-IgG secondary antibody conjugated to HRP for the anti-IRF9 Antibody or a donkey anti-rabbit IgG Antibody conjugated to HRP for anti-GAPDH Antibody. (lower). Lane M: Molecular weight ladder.



IFN- α treated Jurkat cells were stained with purified anti-IRF9 (5A3A39) antibody, followed by staining with DyLight™ 488 conjugated goat anti-mouse IgG (green) antibody. Nuclei were stained with DAPI (blue).

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