

## Purified anti-IRF3 Antibody

<b>Catalog# / Size</b>	655701 / 25 µg 655702 / 100 µg
<b>Clone</b>	12A4A35
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interferon regulatory factor-3 (IRF-3)
<b>Isotype</b>	Mouse IgG2b, κ
<b>Description</b>	IRF-3 is a member of the interferon regulatory transcription factor (IRF) family. It mediates interferon-stimulated response element (ISRE) promoter activation and functions as a molecular switch for antiviral activity. DsRNA generated during the course of a viral infection leads to IRF-3 phosphorylation on the C-terminal serine/threonine cluster. This induces a conformational change, leading to its dimerization, nuclear localization and association with CREB protein binding to dsRNA-activated factor 1, a complex which activates the transcription of genes under control of ISRE. The phosphorylated IRF-3 is under negative regulation by ubiquitin-mediated degradation. Research indicates that it plays a critical role in stimulated TLR-mediated IL-27 p28 gene expression.

### Product Details

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<b>Reactivity</b>	Human, Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Partial IRF-3 recombinant protein (200-427 a.a.)
<b>Formulation</b>	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	Affinity purified
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	Upon receipt, store undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">WB - Quality tested</a> <a href="#">ChIP - Verified</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">Western blotting</a> . For Western blotting, the suggested use of this reagent is 0.5 - 2.0 µg per ml. For ChIP applications, the suggested dilution is 1:50-1:100 by volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Product Citations</b>	1. He X, <i>et al.</i> 2017. PLoS One. 13(6):e1006347. <a href="#">PubMed</a>
<b>RRID</b>	AB_2562201 (BioLegend Cat. No. 655701) AB_2562202 (BioLegend Cat. No. 655702)

### Antigen Details

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<b>Structure</b>	Human IRF-3 has 427 amino acids with predicted Mw 47.2kD and observed Mw 52kD. Contains an IRF tryptophan pentad repeat responsible for DNA binding. Mouse Irf-3 has 419 amino acids with predicted MW 46.9kD and observed Mw 45kD.
<b>Distribution</b>	Inactive IRF-3 continuously transits between the cytoplasm and nucleus. Serine/threonine phosphorylation of IRF-3 results in the structural changes which allow IRF-3 activation. The activated IRF3 translocates to the nucleus, where it forms a complex with CREB binding protein and activates the transcription of interferons, interferon stimulated genes, and other antiviral response

genes.

<b>Function</b>	IRF-3 is a constitutively expressed, latent transcription factor that plays a pivotal role in type I IFN response.
<b>Interaction</b>	CREB binding protein, IRF-7, TICAM-1, TICAM-2, non-canonical IKB kinases TBK1 and IKKε.
<b>Biology Area</b>	Cell Biology, Immunology, Innate Immunity, Signal Transduction, Transcription Factors
<b>Molecular Family</b>	Nuclear Markers
<b>Antigen References</b>	1. Lin R, <i>et al.</i> 1999. <i>Mol. Cell Biol.</i> 19:959. 2. Hiscott J, <i>et al.</i> 2007. <i>J. Biol. Chem.</i> 282:15325. 3. Molle C, <i>et al.</i> 2010. <i>J. Immunol.</i> 184:1784.
<b>Gene ID</b>	<a href="#">3661</a>

## Related Protocols

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

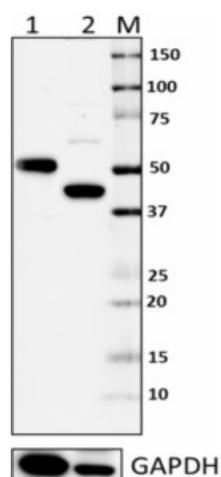
[Chromatin Immunoprecipitation \(ChIP\) Assay Protocol](#)

[Western Blotting Protocol](#)

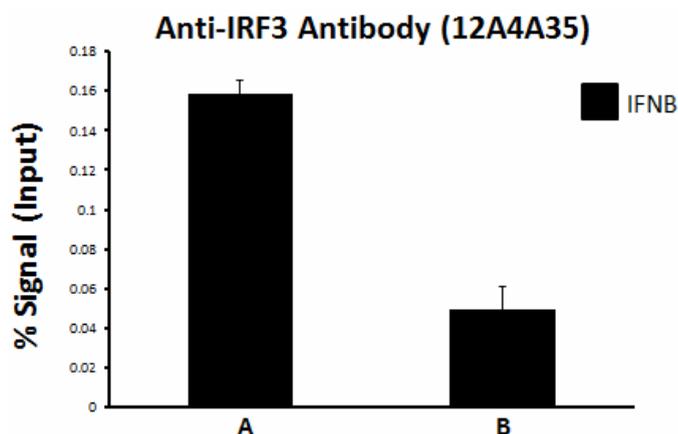
## Other Formats

Purified anti-IRF3

## Product Data



Total lysates (15 µg protein) from Daudi (lane 1) and A20 (lane 2) were resolved by electrophoresis (4-12% Bis-Tris gel), transferred to nitrocellulose, and probed with 1:1000 diluted (0.5 µg/mL) purified anti-IRF3 antibody clone 12A4A35 (upper). Proteins were visualized using an HRP goat anti-mouse-IgG secondary antibody (Cat. No. 405306) or HRP Donkey anti-rabbit IgG Antibody (Cat. No. 406401) for GAPDH and chemiluminescence detection. GAPDH (poly6314, Cat. No. 631401) antibody was used as a loading control (lower). Lane M: MW ladder.



Chromatin Immunoprecipitation (ChIP) was performed using Go-ChIP-Grade™ Protein G Enzymatic Kit by loading 3 µg of cross-linked chromatin samples from THP-1 cells treated with LPS with either A) 1:50 dilution of Go-ChIP-Grade™ Purified anti-IRF3 (Clone 12A4A35), 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 IFNB gene region. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the 5% of total amount of input chromatin.

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587