

Technical Data Sheet

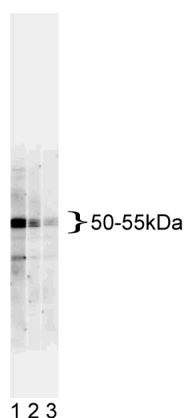
Purified Mouse Anti-Human IRF-3 w/control

Product Information

Material Number:	551035
Size:	50 µg
Reactivity:	QC Testing: Human
Component:	51-6931GR
Description:	Purified Mouse Anti-Human IRF3
Size:	(1 ea)
Concentration:	0.25 mg/ml
Clone Name:	SL-14.2
Immunogen:	Human IRF-3 recombinant fusion protein
Isotype:	Mouse IgG1
Target MW:	50-55 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Component:	51-16526N
Description:	Jurkat Cell Lysate
Size:	(1 ea)
Concentration:	1.0 mg/ml
Storage Buffer:	SDS-PAGE buffer (62mM Tris pH 6.8, 2% SDS, 0.9% β-mercaptoethanol, 0.003% bromophenol blue, 5% glycerol)

Description

Viral infection in mammals can lead to the induction of multiple pathways as part of the host defense mechanism. One of the major pathways activated is the JAK-STAT pathway by various interferons (IFN α and IFN β). These IFNs exert their influence via transcriptional activation of specific target genes involved in anti-viral defense, for example the chemokine ISG15 gene or the major histocompatibility complex class I and II molecules. These genes in turn are regulated by the JAK-STAT signaling pathway and through interferon regulatory factors (IRFs). IRFs are a family of transcription factors which possess a broad range of activities. IRF-3 is one of nine members which all share a common DNA binding domain which binds to IFN stimulated response element (ISRE) found in the majority of IFN-inducible promoters. The IRF-3 gene expresses a 50 kDa protein which is constitutively expressed in all tissues. The protein undergoes post-translational modification as well as dimerization and is translocated from the cytoplasm to the nucleus upon viral infection or exposure to dsRNA. The antibody recognizes human IRF-3. A purified recombinant GST-IRF-3 fusion protein corresponding to human IRF-3 was used as the immunogen.



Western blot analysis of IRF-3. Lysates from Jurkat cells were probed with anti-human IRF-3 (clone SL-14.2, Comp. No. 51-6931GR) at concentrations of 4.0 (lane 1), 2.0 (lane 2), and 1.0 µg/ml (lane 3). IRF-3 is identified at ~50-55 kDa.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

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Application Notes

Application

Western blot	Routinely Tested
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Recommended Assay Procedure:

Applications include western blot analysis (1.0–4.0 µg/ml). Store the antibody at -20°C. The antibody will only recognize the cytoplasmic form of IRF-3 and can not block IRF-3 DNA binding, although this application has not been tested at BD Biosciences Pharmingen. Jurkat control lysate [50 µg (1 µg/µl)] is provided as a western blot positive control (Comp. No. 51-16526N; store lysate at -20°C). Additional control lysate (Cat. No. 611451) is sold separately.

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Au WC, Moore PA, Lowther W, Juang YT, Pitha PM. 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 U S A*. 1995; 92(25):11657-11661. (Biology)

Darnell JE Jr, Kerr IM, Stark GR. Jak-STAT pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. *Science*. 1994; 264(5164):1415-1421. (Biology)

Hiscott J, Pitha P, Genin P, et al. Triggering the interferon response: the role of IRF-3 transcription factor. *J Interferon Cytokine Res*. 1999; 19(1):1-13. (Biology)

Loh JE, Chang CH, Fodor WL, Flavell RA. Dissection of the interferon gamma-MHC class II signal transduction pathway reveals that type I and type II interferon systems share common signalling component(s). *EMBO J*. 1992; 11(4):1351-1363. (Biology)

Mamane Y, Heylbroeck C, Genin P, et al. Interferon regulatory factors: the next generation. *Gene*. 1999; 237(1):1-14. (Biology)

Reich N, Evans B, Levy D, Fahey D, Knight E Jr, Darnell JE Jr. Interferon-induced transcription of a gene encoding a 15-kDa protein depends on an upstream enhancer element. *Proc Natl Acad Sci U S A*. 1987; 84(18):6394-6398. (Biology)

Ronco LV, Karpova AY, Vidal M, Howley PM. Human papillomavirus 16 E6 oncoprotein binds to interferon regulatory factor-3 and inhibits its transcriptional activity. *Genes Dev*. 1998; 12(13):2061-2072. (Biology)

Wathelet MG, Lin CH, Parekh BS, Ronco LV, Howley PM, Maniatis T. Virus infection induces the assembly of coordinately activated transcription factors on the IFN-beta enhancer in vivo. *Mol Cell*. 1998; 1(4):507-518. (Clone-specific: Blocking)