Technical Data Sheet

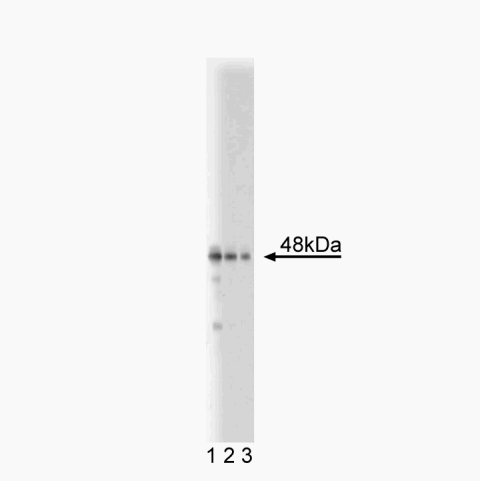
Purified Mouse Anti-IRF1

Product Information

Material Number:	**612047**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	20/IRF-1
Immunogen:	Human IRF1 aa. 159-279
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	48 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Cytokine function is critical for both innate and adaptive immune responses. Interferon (IFN) signal transduction pathways involve a variety of transcription factors that bind specific DNA motifs called IFN-stimulated response elements (ISRE) and IFN γ-activated sequences (GAS). The IFN regulatory factor (IRF) family is a group of transcription factors that bind to these DNA motifs and regulate the activity of IFN-responsive genes. The IRF family is comprised of seven different proteins (IRF1 to IRF7) that have been identified due to their interaction with ISRE and GAS sequences. IRF1 functions in the activation of IFN-responsive genes during induction of histocompatibility antigens, and inhibition of cell proliferation. In addition, IRF1 may function as a tumor suppressor, since deletions in the IRF1 locus is associated with myelodysplasia and leukemias. IRF2 is thought to be a transcriptional repressor, while others like IRF3 and IRF4 may function as activators or repressors depending on the specific promoter. In lymphocytes, IRF4 is required for normal development and function. Thus, IRFs regulate the activity of IFN-responsive genes required for normal immune function.



Western blot analysis of IRF1 on a MOLT-3 cell lysate (Human T-lymphoblasts; ATCC CRL-1552). *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-IRF1 antibody.*

Preparation and Storage

Store undiluted at -20°C.

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

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
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.

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2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Cha Y, Sims SH, Romine MF, Kaufmann M, Deisseroth AB. Human interferon regulatory factor 1: intron-exon organization. *DNA Cell Biol.* 1992; 11(8):605-611. (Biology)

Kroger A, Ortmann D, Krohne TU, et al. Growth suppression of the hepatocellular carcinoma cell line Hepa1-6 by an activatable interferon regulatory factor-1 in mice. *Cancer Res.* 2001; 61(6):2609-2617. (Biology)

Xie R, van Wijnen AJ, van Der Meijden C, Luong MX, Stein JL, Stein GS. The cell cycle control element of histone H4 gene transcription is maximally responsive to interferon regulatory factor pairs IRF-1/IRF-3 and IRF-1/IRF-7. *J Biol Chem.* 2001; 276(21):18624-18632. (Biology)