

IRF-4 (3E4): sc-130921



The Power to Question

BACKGROUND

Interferon regulatory factor-4 (IRF-4) belongs to the IRF family of DNA-binding factors which regulate both interferon and interferon-inducible genes. Family members include IRF-1–7, ISGF-3 γ p48 and IFN consensus sequence-binding protein (ICSBP). IRF-4 is also known as lymphocyte specific interferon regulatory factor (LSIRF), multiple myeloma oncogene 1 and PU.1 interaction partner (Pip). A nuclear protein specific to lymphoid cells, IRF-4 is a transcriptional activator that binds to the interferon-stimulated response element (ISRE) of the MHC class I promoter.

CHROMOSOMAL LOCATION

Genetic locus: IRF4 (human) mapping to 6p25.3; Irf4 (mouse) mapping to 13 A3.2.

SOURCE

IRF-4 (3E4) is a rat monoclonal antibody raised against amino acids 386-450 of IRF-4 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IRF-4 (3E4) is available conjugated to agarose (sc-130921 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-130921 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-130921 PE), fluorescein (sc-130921 FITC), Alexa Fluor[®] 488 (sc-130921 AF488), Alexa Fluor[®] 546 (sc-130921 AF546), Alexa Fluor[®] 594 (sc-130921 AF594) or Alexa Fluor[®] 647 (sc-130921 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-130921 AF680) or Alexa Fluor[®] 790 (sc-130921 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

IRF-4 (3E4) is recommended for detection of IRF-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for IRF-4 siRNA (h): sc-35712, IRF-4 siRNA (m): sc-35713, IRF-4 shRNA Plasmid (h): sc-35712-SH, IRF-4 shRNA Plasmid (m): sc-35713-SH, IRF-4 shRNA (h) Lentiviral Particles: sc-35712-V and IRF-4 shRNA (m) Lentiviral Particles: sc-35713-V.

Molecular Weight of IRF-4: 52 kDa.

Positive Controls: MM-142 cell lysate: sc-2246, Ramos cell lysate: sc-2216 or NAMALWA cell lysate: sc-2234.

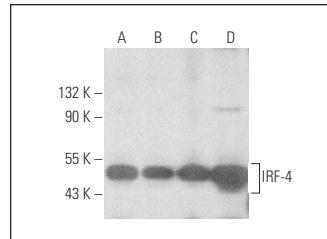
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

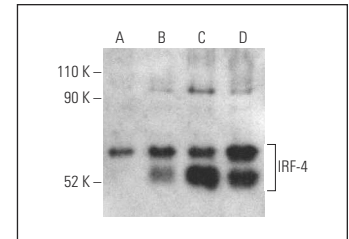
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



IRF-4 (3E4): sc-130921. Western blot analysis of IRF-4 expression in Ramos (A), NAMALWA (B), GA-10 (C) and MM-142 (D) whole cell lysates.



IRF-4 (3E4) HRP: sc-130921 HRP. Direct western blot analysis of IRF-4 expression in NAMALWA (A), GA-10 (B), MM-142 (C) and JM1 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wang, J., et al. 2015. Potential effects of interferon regulatory factor 4 in a murine model of polyinosinic-polycytidylic acid-induced embryo resorption. *Reprod. Fert. Dev.* 28: 1631-1641.
- Nam, S., et al. 2016. Interferon regulatory factor 4 (IRF-4) controls myeloid-derived suppressor cell (MDSC) differentiation and function. *J. Leukoc. Biol.* 100: 1273-1284.
- Chen, J., et al. 2020. RNA-binding protein HuR promotes Th17 cell differentiation and can be targeted to reduce autoimmune neuroinflammation. *J. Immunol.* 204: 2076-2087.
- Bolognesi, M.M., et al. 2021. Antibodies validated for routinely processed tissues stain frozen sections unpredictably. *Biotechniques* 70: 137-148.
- Hogg, S.J., et al. 2021. Targeting histone acetylation dynamics and oncogenic transcription by catalytic P300/CBP inhibition. *Mol. Cell* 81: 2183-2200.e13.
- Dobosz, E., et al. 2021. Murine myeloid cell MCP1P1 suppresses autoimmunity by regulating B-cell expansion and differentiation. *Dis. Model. Mech.* 14: dmm047589.
- Ribeiro, A., et al. 2022. Macrophage-specific MCP1P1/regnase-1 attenuates kidney ischemia-reperfusion injury by shaping the local inflammatory response and tissue regeneration. *Cells* 11: 397.
- Kim, Y.M., et al. 2023. Pellino 3 promotes the colitis-associated colorectal cancer through suppression of IRF-4-mediated negative regulation of TLR4 signalling. *Mol. Oncol.* 17: 2380-2395.
- Wiarda, J.E., et al. 2024. Conserved B cell signaling, activation, and differentiation in porcine jejunal and ileal Peyer's patches despite distinct immune landscapes. *Mucosal Immunol.* 17: 1222-1241.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.