SANTA CRUZ BIOTECHNOLOGY, INC.

IRF-4 (F-4): sc-48338

SANTA CRUZ BIOTECHNOLOGY

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-3γ 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 (F-4) is a mouse monoclonal antibody raised against amino acids 128-267 of IRF-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48338 X, 200 µg/0.1 ml.

IRF-4 (F-4) is available conjugated to agarose (sc-48338 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48338 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48338 PE), fluorescein (sc-48338 FITC), Alexa Fluor® 488 (sc-48338 AF488), Alexa Fluor® 546 (sc-48338 AF546), Alexa Fluor® 594 (sc-48338 AF594) or Alexa Fluor® 647 (sc-48338 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48338 AF680) or Alexa Fluor® 790 (sc-48338 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IRF-4 (F-4) is recommended for detection of IRF-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

IRF-4 (F-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

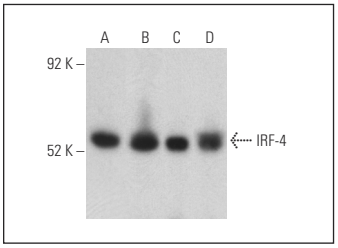
Molecular Weight of IRF-4: 52 kDa.

Positive Controls: NCI-H929 whole cell lysate: sc-364786, Ramos nuclear extract: sc-2153 or MM-142 nuclear extract: sc-2139.

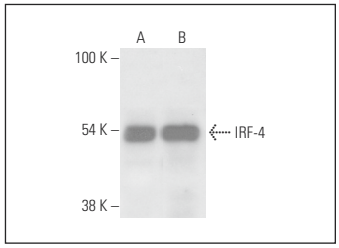
STORAGE

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

DATA



IRF-4 (F-4): sc-48338. Western blot analysis of IRF-4 expression in Ramos (**A**) and GA-10 (**B**) nuclear extracts and NCI-H929 (**C**) and RPMI-8226 (**D**) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



IRF-4 (F-4): sc-48338. Western blot analysis of IRF-4 expression in Ramos (**A**) and MM-142 (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Kim, J.E., et al. 2009. Sonic hedgehog signaling proteins and ATP-binding cassette G_2 are aberrantly expressed in diffuse large B-cell lymphoma. Mod. Pathol. 22: 1312-1320.
2. Tsai, P.C., et al. 2012. Regulation of CD20 in rituximab-resistant cell lines and B-cell non-Hodgkin lymphoma. Clin. Cancer Res. 18: 1039-1050.
3. Zanin-Zhorov, A., et al. 2017. Cutting edge: selective oral Rock2 inhibitor reduces clinical scores in patients with psoriasis vulgaris and normalizes skin pathology via concurrent regulation of IL-17 and IL-10. J. Immunol. 198: 3809-3814.
4. Herrmann, A., et al. 2019. An effective cell-penetrating antibody delivery platform. JCI Insight 4: e127474.
5. van der Veeken, J., et al. 2020. The transcription factor Foxp3 shapes regulatory T cell identity by tuning the activity of *trans*-acting intermediaries. Immunity 53: 971-984.e5.
6. Ngwa, C., et al. 2021. Phosphorylation of microglial IRF5 and IRF4 by IRAK4 regulates inflammatory responses to ischemia. Cells 10: 276.
7. Nascimento Da Conceicao, V., et al. 2021. Resolving macrophage polarization through distinct Ca^{2+} entry channel that maintains intracellular signaling and mitochondrial bioenergetics. iScience 24: 103339.
8. Azagra, A., et al. 2022. The HDAC7-TET2 epigenetic axis is essential during early B lymphocyte development. Nucleic Acids Res. 50: 8471-8490.
9. Sun, X., et al. 2022. MicroRNA-155-5p initiates childhood acute lymphoblastic leukemia by regulating the IRF4/CDK6/CBL axis. Lab. Invest. 102: 411-421.
10. Wu, J., et al. 2022. A p38α-BLIMP1 signalling pathway is essential for plasma cell differentiation. Nat. Commun. 13: 7321.

RESEARCH USE

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