

IRF-7 (G-8): sc-74472

BACKGROUND

Interferon regulatory factor-1 (IRF-1) and IRF-2 have been identified as novel DNA-binding factors that function as regulators of both type I interferon (interferon- α and - β) and interferon-inducible genes. The two factors are structurally related, particularly in their N-terminal regions, which confer DNA-binding specificity. In addition, both bind to the same sequence within the promoters of interferon- α and interferon- β genes. IRF-1 functions as an activator of interferon transcription, while IRF-2 binds to the same cis elements and represses IRF-1 action. IRF-1 and IRF-2 have been reported to act in a mutually antagonistic manner in regulating cell growth; overexpression of the repressor IRF-2 leads to cell transformation while concomitant overexpression of IRF-1 causes reversion. IRF-1 and IRF-2 are members of a larger family of DNA-binding proteins that includes IRF-3, IRF-4, IRF-5, IRF-6, IRF-7, ISGF-3 γ p48 and IFN consensus sequence-binding protein (ICSBP).

CHROMOSOMAL LOCATION

Genetic locus: IRF7 (human) mapping to 11p15.5.

SOURCE

IRF-7 (G-8) is a mouse monoclonal antibody raised against amino acids 1-246 of IRF-7 of human origin.

PRODUCT

Each vial contains 200 μ g 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-74472 X, 200 μ g/0.1 ml.

IRF-7 (G-8) is available conjugated to agarose (sc-74472 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74472 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74472 PE), fluorescein (sc-74472 FITC), Alexa Fluor[®] 488 (sc-74472 AF488), Alexa Fluor[®] 546 (sc-74472 AF546), Alexa Fluor[®] 594 (sc-74472 AF594) or Alexa Fluor[®] 647 (sc-74472 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-74472 AF680) or Alexa Fluor[®] 790 (sc-74472 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IRF-7 (G-8) is recommended for detection of IRF-7 of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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-7 siRNA (h): sc-38011, IRF-7 shRNA Plasmid (h): sc-38011-SH and IRF-7 shRNA (h) Lentiviral Particles: sc-38011-V.

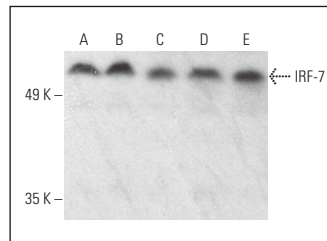
IRF-7 (G-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IRF-7 isoforms A/B/C/D: 54/51/18/56 kDa.

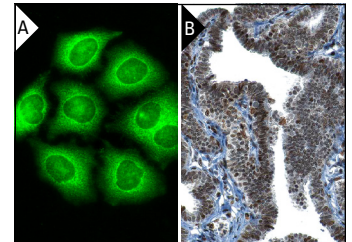
STORAGE

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

DATA



IRF-7 (G-8) HRP: sc-74472 HRP. Direct western blot analysis of IRF-7 expression in Jurkat (A), Jurkat + PMA (B), Raji (C), NAMALWA (D) and GA-10 (E) whole cell lysates.



IRF-7 (G-8): sc-74472. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Huye, L.E., et al. 2007. Interferon regulatory factor 7 is activated by a viral oncoprotein through RIP-dependent ubiquitination. *Mol. Cell. Biol.* 27: 2910-2918.
- Schmid, S., et al. 2010. Transcription factor redundancy ensures induction of the antiviral state. *J. Biol. Chem.* 285: 42013-42022.
- Sweeney, S.E. 2011. Targeting interferon regulatory factors to inhibit activation of the type I IFN response: implications for treatment of autoimmune disorders. *Cell. Immunol.* 271: 342-349.
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- Bao, M., et al. 2016. NFATC3 promotes IRF-7 transcriptional activity in plasmacytoid dendritic cells. *J. Exp. Med.* 213: 2383-2398.
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- Yin, X., et al. 2017. Hepatitis E virus persists in the presence of a type III interferon response. *PLoS Pathog.* 13: e1006417.
- Perego, J., et al. 2018. Guanabenz inhibits TLR9 signaling through a pathway that is independent of eIF2 α dephosphorylation by the GADD34/PP1c complex. *Sci. Signal.* 11: eaam8104.

RESEARCH USE

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

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