

IRF-7 (H-246): sc-9083

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; Irf7 (mouse) mapping to 7 F5.

SOURCE

IRF-7 (H-246) is a rabbit polyclonal antibody raised against amino acids 1-246 of IRF-7 of human origin.

PRODUCT

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9083 X, 200 μ g/0.1 ml.

APPLICATIONS

IRF-7 (H-246) is recommended for detection of IRF-7 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 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 siRNA (m): sc-38012, IRF-7 shRNA Plasmid (h): sc-38011-SH, IRF-7 shRNA Plasmid (m): sc-38012-SH, IRF-7 shRNA (h) Lentiviral Particles: sc-38011-V and IRF-7 shRNA (m) Lentiviral Particles: sc-38012-V.

IRF-7 (H-246) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IRF-7 isoform A: 54 kDa.

Molecular Weight of IRF-7 isoform B: 51 kDa.

Molecular Weight of IRF-7 isoform C: 18 kDa.

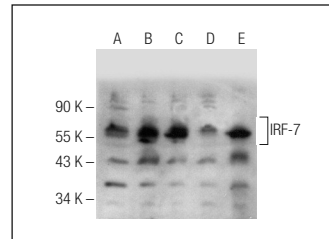
Molecular Weight of IRF-7 isoform D: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 or HuT 78 whole cell lysate: sc-2208.

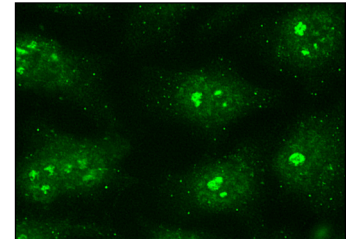
STORAGE

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

DATA



IRF-7 (H-246): sc-9083. Western blot analysis of IRF-7 expression in PMA treated Jurkat (A), Raji (B), HuT 78 (C), Jurkat (D) and HEK293 (E) whole cell lysates.



IRF-7 (H-246): sc-9083. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization.

SELECT PRODUCT CITATIONS

- Casola, A., et al. 2001. Oxidant tone regulates RANTES gene expression in airway epithelial cells infected with respiratory syncytial virus. Role in viral-induced interferon regulatory factor activation. *J. Biol. Chem.* 276: 19715-19722.
- Miyamoto, R., et al. 2010. Inhibitor of I κ B kinase activity, BAY 11-7082, interferes with interferon regulatory factor 7 nuclear translocation and type I interferon production by plasmacytoid dendritic cells. *Arthritis Res. Ther.* 12: R87.
- Amuro, H., et al. 2010. Statins, inhibitors of 3-hydroxy-3-methylglutaryl-coenzyme A reductase, function as inhibitors of cellular and molecular components involved in type I interferon production. *Arthritis Rheum.* 62: 2073-2085.
- Martinson, J.A., et al. 2010. Chloroquine modulates HIV-1-induced plasmacytoid dendritic cell α interferon: implication for T-cell activation. *Antimicrob. Agents Chemother.* 54: 871-881.
- Oldak, M., et al. 2011. Differential regulation of human papillomavirus type 8 by interferon regulatory factors 3 and 7. *J. Virol.* 85: 178-188.
- Lu, X., et al. 2011. Regulation of influenza A virus induced CXCL-10 gene expression requires PI3K/Akt pathway and IRF3 transcription factor. *Mol. Immunol.* 48: 1417-1423.

RESEARCH USE

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


 MONOS
 Satisfaction
 Guaranteed

Try **IRF-7 (G-8): sc-74472** or **IRF-7 (F-1): sc-74471**, our highly recommended monoclonal alternatives to IRF-7 (H-246). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **IRF-7 (G-8): sc-74472**.