

IRF-2 (TQ-5): sc-101069

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 (a component of the ISGF-3 complex) and IFN consensus sequence-binding protein (ICSBP).

CHROMOSOMAL LOCATION

Genetic locus: IRF2 (human) mapping to 4q35.1.

SOURCE

IRF-2 (TQ-5) is a mouse monoclonal antibody raised against recombinant IRF-2 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

IRF-2 (TQ-5) is recommended for detection of IRF-2 of 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), 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-2 siRNA (h): sc-35708, IRF-2 shRNA Plasmid (h): sc-35708-SH and IRF-2 shRNA (h) Lentiviral Particles: sc-35708-V.

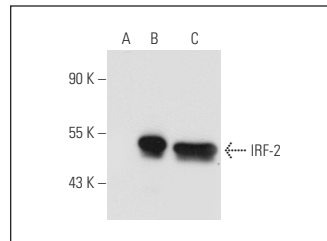
Molecular Weight of IRF-2: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or IRF-2 (h): 293 Lysate: sc-112233.

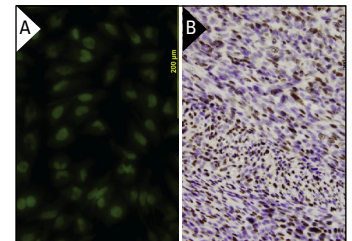
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IRF-2 (TQ-5): sc-101069. Western blot analysis of IRF-2 expression in non-transfected 293T: sc-117752 (A), human IRF-2 transfected 293T: sc-112233 (B) and Jurkat (C) whole cell lysates.



IRF-2 (TQ-5): sc-101069. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human leiomyosarcoma tissue showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Wu, Y., et al. 2011. Up-regulation and sustained activation of Stat1 are essential for interferon- γ (IFN- γ)-induced dual oxidase 2 (Duox2) and dual oxidase A2 (DuoxA2) expression in human pancreatic cancer cell lines. *J. Biol. Chem.* 286: 12245-12256.
- Fragale, A., et al. 2011. Critical role of IRF-8 in negative regulation of TLR3 expression by Src homology 2 domain-containing protein tyrosine phosphatase-2 activity in human myeloid dendritic cells. *J. Immunol.* 186: 1951-1962.
- Meng, X., et al. 2012. C7L family of poxvirus host range genes inhibits antiviral activities induced by type I interferons and interferon regulatory factor 1. *J. Virol.* 86: 4538-4547.
- Kinsella, S., et al. 2016. Bid promotes K63-linked polyubiquitination of tumor necrosis factor receptor associated factor 6 (TRAF6) and sensitizes to mutant SOD1-induced proinflammatory signaling in microglia. *eNeuro* 3: ENEURO.0099-15.2016.
- Benaoudia, S., et al. 2019. A genome-wide screen identifies IRF2 as a key regulator of caspase-4 in human cells. *EMBO Rep.* 20: e48235.

RESEARCH USE

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