SANTA CRUZ BIOTECHNOLOGY, INC.

IRF-2 (G-10): sc-374327

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-3γ 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; Irf2 (mouse) mapping to 8 B1.1.

SOURCE

IRF-2 (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 317-346 at the C-terminus of IRF-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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-374327 X, 200 µg/0.1 ml.

IRF-2 (G-10) is available conjugated to agarose (sc-374327 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374327 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374327 PE), fluorescein (sc-374327 FITC), Alexa Fluor® 488 (sc-374327 AF488), Alexa Fluor® 546 (sc-374327 AF546), Alexa Fluor® 594 (sc-374327 AF594) or Alexa Fluor® 647 (sc-374327 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374327 AF680) or Alexa Fluor® 790 (sc-374327 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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 (G-10) is recommended for detection of IRF-2 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).

IRF-2 (G-10) is also recommended for detection of IRF-2 in additional species, including equine, canine and bovine.

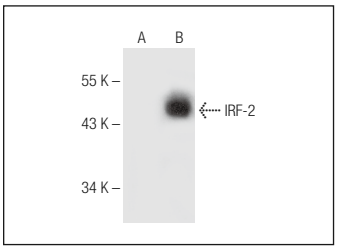
Suitable for use as control antibody for IRF-2 siRNA (h): sc-35708, IRF-2 siRNA (m): sc-35709, IRF-2 siRNA (r): sc-270109, IRF-2 shRNA Plasmid (h): sc-35708-SH, IRF-2 shRNA Plasmid (m): sc-35709-SH, IRF-2 shRNA Plasmid (r): sc-270109-SH, IRF-2 shRNA (h) Lentiviral Particles: sc-35708-V, IRF-2 shRNA (m) Lentiviral Particles: sc-35709-V and IRF-2 shRNA (r) Lentiviral Particles: sc-270109-V.

IRF-2 (G-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IRF-2: 50 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MM-142 cell lysate: sc-2246 or IRF-2 (m): 293T Lysate: sc-121108.

DATA



IRF-2 (G-10): sc-374327. Western blot analysis of IRF-2 expression in non-transfected: sc-117752 (**A**) and mouse IRF-2 transfected: sc-121108 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yongyu, Z., et al. 2018. MicroRNA-18a targets IRF2 and CBX7 to promote cell proliferation in hepatocellular carcinoma. Oncol. Res. 26: 1327-1334.
2. 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.
3. Li, X., et al. 2022. IRF2-induced claudin-7 suppresses cell proliferation, invasion and migration of oral squamous cell carcinoma. Exp. Ther. Med. 23: 7.
4. Bray, D., et al. 2022. CASCADE: high-throughput characterization of regulatory complex binding altered by non-coding variants. Cell Genom. 2: 100098.

RESEARCH USE

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