SANTA CRUZ BIOTECHNOLOGY, INC.

IFRD1 (D-7): sc-515012

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interferon-related developmental regulator-1 (IFRD1) gene is a human homolog of the rat PC4 gene initially isolated as a nerve growth factor-inducible sequence in PC12 cells. PC4 is present at high levels along the neural tube of early rat embryos. Expression of PC4 in the myoblast C2C12 cell line decreases within 6 hours from the onset of differentiation, attains a minimum after 12 hours, and returns to basal level within 36 hours; the transient downregulation of PC4 expression can be prevented by transforming growth factor β, a molecule which inhibits the differentiation of muscle.

REFERENCES

1. Guardavaccaro, D., Ciotti, M.T., Schafer, B.W., Montagnoli, A. and Tirone, F. 1995. Inhibition of differentiation in myoblasts deprived of the interferon-related protein PC4. Cell Growth Differ. 6: 159-169.
2. Iacopetti, P., Barsacchi, G., Tirone, F. and Cremisi, F. 1996. Expression of the PC4 gene in the developing rat nervous system. Brain Res. 707: 293-297.
3. Buanne, P., Incerti, B., Guardavaccaro, D., Avvantaggiato, V., Simeone, A. and Tirone, F. 1998. Cloning of the human interferon-related developmental regulator (IFRD1) gene coding for the PC4 protein, a member of a novel family of developmentally regulated genes. Genomics 51: 233-242.

CHROMOSOMAL LOCATION

Genetic locus: IFRD1 (human) mapping to 7q31.1; Ifrd1 (mouse) mapping to 12 B1.

SOURCE

IFRD1 (D-7) is a mouse monoclonal antibody raised against amino acids 161-249 mapping within an internal region of IFRD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-515012 X, 200 µg/0.1 ml.

IFRD1 (D-7) is available conjugated to agarose (sc-515012 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515012 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515012 PE), fluorescein (sc-515012 FITC), Alexa Fluor® 488 (sc-515012 AF488), Alexa Fluor® 546 (sc-515012 AF546), Alexa Fluor® 594 (sc-515012 AF594) or Alexa Fluor® 647 (sc-515012 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515012 AF680) or Alexa Fluor® 790 (sc-515012 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

IFRD1 (D-7) is recommended for detection of IFRD1 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 IFRD1 siRNA (h): sc-38015, IFRD1 siRNA (m): sc-38016, IFRD1 shRNA Plasmid (h): sc-38015-SH, IFRD1 shRNA Plasmid (m): sc-38016-SH, IFRD1 shRNA (h) Lentiviral Particles: sc-38015-V and IFRD1 shRNA (m) Lentiviral Particles: sc-38016-V.

IFRD1 (D-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

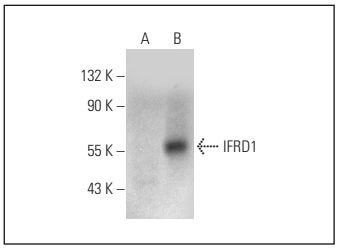
Molecular Weight of IFRD1: 53 kDa.

Positive Controls: IFRD1 (m): 293T Lysate: sc-120958.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IFRD1 (D-7): sc-515012. Western blot analysis of IFRD1 expression in non-transfected: sc-117752 (**A**) and mouse IFRD1 transfected: sc-120958 (**B**) 293T whole cell lysates.

PROTOCOLS

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