

RFX1 (F-6): sc-374270

BACKGROUND

EP is a regulatory enhancer element found in several promoters on viral genes, and similar sites are also present in cellular genes, including the MIF-1 binding site (MIE) of the human c-Myc gene, the X box of MHC class II promoters and a binding site in the proliferating cell nuclear antigen promoter. The EP sites present in the X box of MHC class II promoters are distinctly nonpalindromic sequences that contain only a single EP-homologous half-site. The EP element is bound by an ubiquitous nuclear protein complex that consists of homo- and heterodimers involving the RFX1, RFX2 and RFX3 proteins. The RFX proteins represent an essential class II transcription factor family that shares several conserved regions, including the centrally located DNA-binding domain (DBD) and the D region found in the C-terminal part of these proteins which facilitates dimerization. RFX complexes can activate the enhancer elements of several HBV genes and also promote the induction of MHC class II genes in response to interferon- γ stimulation. To additional subunits, RFX5, RFX-B/Ank, are also involved in the RFX complexes, yet they bind additional elements in the X1 half of the X box.

CHROMOSOMAL LOCATION

Genetic locus: RFX1 (human) mapping to 19p13.12; Rfx1 (mouse) mapping to 8 C3.

SOURCE

RFX1 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 931-967 near the C-terminus of RFX1 of human origin.

PRODUCT

Each vial contains 200 μ g 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-374270 X, 200 μ g/0.1 ml.

RFX1 (F-6) is available conjugated to agarose (sc-374270 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374270 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374270 PE), fluorescein (sc-374270 FITC), Alexa Fluor[®] 488 (sc-374270 AF488), Alexa Fluor[®] 546 (sc-374270 AF546), Alexa Fluor[®] 594 (sc-374270 AF594) or Alexa Fluor[®] 647 (sc-374270 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374270 AF680) or Alexa Fluor[®] 790 (sc-374270 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374270 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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

RFX1 (F-6) is recommended for detection of RFX1 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

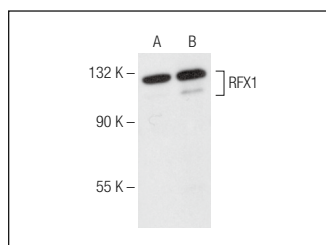
Suitable for use as control antibody for RFX1 siRNA (h): sc-37741, RFX1 siRNA (m): sc-37742, RFX1 shRNA Plasmid (h): sc-37741-SH, RFX1 shRNA Plasmid (m): sc-37742-SH, RFX1 shRNA (h) Lentiviral Particles: sc-37741-V and RFX1 shRNA (m) Lentiviral Particles: sc-37742-V.

RFX1 (F-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

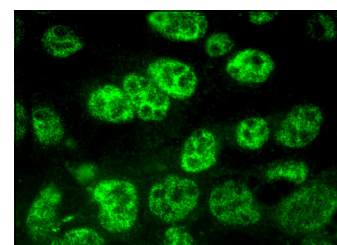
Molecular Weight of RFX1: 130 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HeLa nuclear extract: sc-2120 or K-562 nuclear extract: sc-2130.

DATA



RFX1 (F-6): sc-374270. Western blot analysis of RFX1 expression in K-562 (A) and Jurkat (B) nuclear extracts.



RFX1 (F-6): sc-374270. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

- Li, J., et al. 2020. Dynamic changes in *cis*-regulatory occupancy by Six1 and its cooperative interactions with distinct cofactors drive lineage-specific gene expression programs during progressive differentiation of the auditory sensory epithelium. *Nucleic Acids Res.* 48: 2880-2896.
- Jia, W., et al. 2023. Hypoxia-induced exosomes facilitate lung pre-metastatic niche formation in hepatocellular carcinoma through the miR-4508-RFX1-IL17A-p38 MAPK-NF- κ B pathway. *Int. J. Biol. Sci.* 19: 4744-4762.

RESEARCH USE

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