

RFX2 (E-20): sc-10660

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. Two 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.

REFERENCES

1. Dikstein, R., et al. 1990. Functional organization of the hepatitis B virus enhancer. *Mol. Cell. Biol.* 10: 3682-3689.
2. Fontes, J.D., et al. 1997. Assembly of functional regulatory complexes on MHC class II promoters *in vivo*. *J. Mol. Biol.* 270: 336-345.
3. Katan, Y., et al. 1997. The transcriptional activation and repression domains of RFX1, a context-dependent regulator, can mutually neutralize their activities. *Nucleic Acids Res.* 25: 3621-3628.

CHROMOSOMAL LOCATION

Genetic locus: Rfx2 (mouse) mapping to 17 D.

SOURCE

RFX2 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RFX2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10660 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10660 X, 200 μ g/0.1 ml.

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

RFX2 (E-20) is recommended for detection of RFX2 of mouse and rat 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 RFX2 siRNA (m): sc-37744, RFX2 shRNA Plasmid (m): sc-37744-SH and RFX2 shRNA (m) Lentiviral Particles: sc-37744-V.

RFX2 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

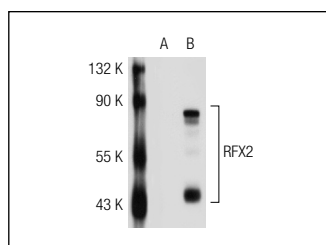
Molecular Weight of RFX2: 77-80 kDa.

Positive Controls: RFX2 (m): 293T Lysate: sc-123092, NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

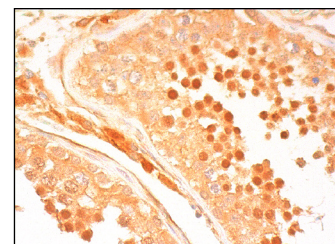
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



RFX2 (E-20): sc-10660. Western blot analysis of RFX2 expression in non-transfected: sc-117752 (A) and mouse RFX2 transfected: sc-123092 (B) 293T whole cell lysates.



RFX2 (E-20): sc-10660. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

SELECT PRODUCT CITATIONS

1. Horvath, G.C., et al. 2004. RFX2 is a potential transcriptional regulatory factor for histone H1t and other genes expressed during the meiotic phase of spermatogenesis. *Biol. Reprod.* 71: 1551-1559.