

# RFXAP (T-15): sc-21333

## BACKGROUND

The regulatory factor X (RFX) proteins include RFX1-5, RFX-B/Ank, and RFX-associated protein (RFXAP). RFX proteins are essential class II transcription factors and activate the enhancer elements of several hepatitis  $\beta$  virus genes as well as promote the induction of MHC class II genes in response to interferon- $\gamma$  stimulation. Structural characteristics of the RFX family include a centrally located DNA-binding domain (DBD) and a C-terminal D region that facilitates dimerization. RFX5, RFX-B/Ank, and RFX-associated protein (RFXAP) comprise the RFX trimer, which binds to X and S boxes in major histocompatibility complex class II (MHC II) promoters. Even though RFXAP lacks a DNA-binding domain, RFXAP and RFX-B/Ank are essential to the RFX DNA-binding function. The RFXAP interacts specifically with RFX5. Loss of RFXAP function is linked to MHC II deficiency disease class D. The gene encoding human RFXAP maps to chromosome 13q13.3.

## REFERENCES

1. 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.
2. Durand, B., et al. 1997. RFXAP, a novel subunit of the RFX DNA binding complex is mutated in MHC class II deficiency. *EMBO J.* 16: 1045-1055.
3. Masternak, K., et al. 1998. A gene encoding a novel RFX-associated transactivator is mutated in the majority of MHC class II deficiency patients. *Nat. Genet.* 20: 273-277.
4. Gajiwala, K.S., et al. 2000. Structure of the winged-helix protein hRFX1 reveals a new mode of DNA binding. *Nature* 403: 916-921.
5. Nekrep, N., et al. 2000. Mutations in the bare lymphocyte syndrome define critical steps in the assembly of the regulatory factor X complex. *Mol. Cell. Biol.* 20: 4455-4461.

## CHROMOSOMAL LOCATION

Genetic locus: RFXAP (human) mapping to 13q13.3; Rfxap (mouse) mapping to 3 C.

## SOURCE

RFXAP (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RFXAP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG 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-21333 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-21333 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

RFXAP (T-15) is recommended for detection of RFXAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

RFXAP (T-15) is also recommended for detection of RFXAP in additional species, including canine, bovine and avian.

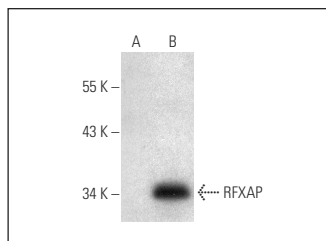
Suitable for use as control antibody for RFXAP siRNA (h): sc-37749, RFXAP siRNA (m): sc-37750, RFXAP shRNA Plasmid (h): sc-37749-SH, RFXAP shRNA Plasmid (m): sc-37750-SH, RFXAP shRNA (h) Lentiviral Particles: sc-37749-V and RFXAP shRNA (m) Lentiviral Particles: sc-37750-V.

RFXAP (T-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RFXAP: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or RFXAP (m): 293T Lysate: sc-123094.

## DATA



RFXAP (T-15): sc-21333. Western blot analysis of RFXAP expression in non-transfected: sc-117752 (A) and mouse RFXAP transfected: sc-123094 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **RFXAP (RFXAD55A): sc-81368**, our highly recommended monoclonal alternative to RFXAP (T-15).