

# RFXAP (RFXAD55A): sc-81368

## 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 B 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., Agami, R. and Shaul, Y. 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., Sperisen, P., Emery, P., Barras, E., Zufferey, M., Mach, B. and Reith, W. 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., Barras, E., Zufferey, M., Conrad, B., Corthals, G., Aebersold, R., Sanchez, J.C., Hochstrasser, D.F., Mach, B. and Reith, W. 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., Chen, H., Cornille, F., Roques, B.P., Reith, W., Mach, B. and Burley, S.K. 2000. Structure of the winged-helix protein hRFX1 reveals a new mode of DNA binding. *Nature* 403: 916-921.
5. Nekrep, N., Jabrane-Ferrat, N. and Peterlin, B.M. 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.
6. LocusLink Report (LocusID: 5994). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: RFXAP (human) mapping to 13q13.3.

## SOURCE

RFXAP (RFXAD55A) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of RFXAP of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## PROTOCOLS

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

## APPLICATIONS

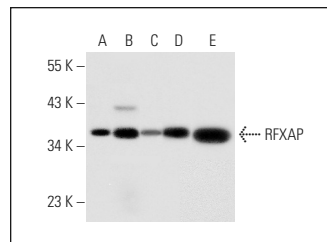
RFXAP (RFXAD55A) is recommended for detection of RFXAP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

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

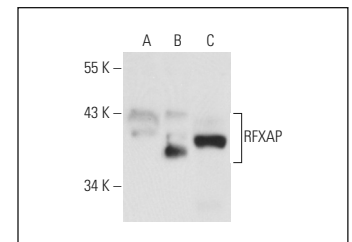
Molecular Weight of RFXAP: 36 kDa.

Positive Controls: RFXAP (h2): 293T Lysate: sc-170250, HeLa whole cell lysate: sc-2200 or HEK293 whole cell lysate: sc-45136.

## DATA



RFXAP (RFXAD55A): sc-81368. Western blot analysis of RFXAP expression in HEK293 (A), HL-60 (B), KNRK (C) and PC-12 (D) whole cell lysates and NIH/3T3 nuclear extract (E).



RFXAP (RFXAD55A): sc-81368. Western blot analysis of RFXAP expression in non-transfected 293T: sc-117752 (A), human RFXAP transfected 293T: sc-170250 (B) and HeLa (C) whole cell lysates.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

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