RFXAP (M-15): sc-21335

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BIOTECHNOLOGY
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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-γ 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 36 kDa 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-q14.

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 trans-activator 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.

6. LocusLink Report (LocusLink ID: 5994) http://www.ncbi.nlm.nih.gov/LocusLink

CHROMOSOMAL LOCATION

Genetic locus: RFXAP (human) mapping to 13q14; Rfxap (mouse) mapping to 3.

SOURCE

RFXAP (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RFXAP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-21335 P, (100 µg 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-21335 X, 200 µg/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.

APPLICATIONS

RFXAP (M-15) is recommended for detection of RFXAP of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (M-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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) 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.

RESEARCH USE

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

PROTOCOLS

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