

RFX7 (P-14): sc-165354

BACKGROUND

RFX7 (regulatory factor X 7), also known as regulatory factor X domain-containing protein 2, is a 1,363 amino acid protein that belongs to the regulatory factor X (RFX) family of transcription factors. The RFX7 protein contains a winged helix region, predicted to interact with the major groove of DNA, and a conserved helix H3 predicted to interact with the minor groove. Localizing to nucleus, RFX7 contains one H-T-H motif winged-type DNA-binding domain. The RFX7 gene contains nine exons and exists as two alternatively spliced isoforms. The RFX7 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 15q21.3. Common variants at chromosome locations 2q37.3, 8q24.21, 15q21.3 and 16q24.1 influence chronic lymphocytic leukemia risk.

REFERENCES

1. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
2. Aftab, S., et al. 2008. Identification and characterization of novel human tissue-specific RFX transcription factors. *BMC Evol. Biol.* 8: 226.
3. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612660. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Chu, J.S., et al. 2010. Convergent evolution of RFX transcription factors and ciliary genes predated the origin of metazoans. *BMC Evol. Biol.* 10: 130.
5. Yau, C., et al. 2010. A multigene predictor of metastatic outcome in early stage hormone receptor-negative and triple-negative breast cancer. *Breast Cancer Res.* 12: R85.
6. Crowther-Swanepoel, D., et al. 2010. Common variants at 2q37.3, 8q24.21, 15q21.3 and 16q24.1 influence chronic lymphocytic leukemia risk. *Nat. Genet.* 42: 132-136.

CHROMOSOMAL LOCATION

Genetic locus: RFX7 (human) mapping to 15q21.3; Rfx7 (mouse) mapping to 9 D.

SOURCE

RFX7 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RFX7 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-165354 P, (100 µg 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

RFX7 (P-14) is recommended for detection of RFX7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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); non cross-reactive with RFXDC1.

Suitable for use as control antibody for RFX7 siRNA (h): sc-90312, RFX7 siRNA (m): sc-152829, RFX7 shRNA Plasmid (h): sc-90312-SH, RFX7 shRNA Plasmid (m): sc-152829-SH, RFX7 shRNA (h) Lentiviral Particles: sc-90312-V and RFX7 shRNA (m) Lentiviral Particles: sc-152829-V.

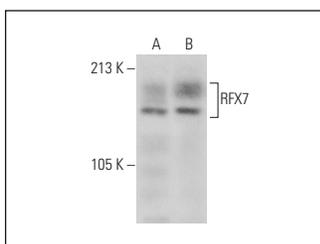
Molecular Weight of RFX7 isoforms: 147/138 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

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.

DATA



RFX7 (P-14): sc-165354. Western blot analysis of RFX7 expression in HeLa (A) and Jurkat (B) nuclear extracts.

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.