

AFX1 (N-20): sc-34903

BACKGROUND

FKHR (for forkhead in rhabdomyosarcoma), FKHL1, and AFX1 are members of a subfamily of the forkhead family of transcription factors. AFX1, also known as AFX1, is expressed in a wide variety of tissues and, like other FKHR proteins, AFX1 contains a single forkhead domain and serine-proline-rich region, which mediate DNA binding. AFX1-mediated transcriptional activation is regulated by the serine/threonine kinase Akt1, which phosphorylates AFX1 and in turn, sequesters AFX1 in the cytosol, thereby blocking nuclear localization and DNA binding. Genetic mutations in FKHR genes, including the t(2;13) and t(1;3) translocations, are commonly found in alveolar rhabdo-myosarcomas. Additionally, the t(x;11) translocation of the AFX1 gene, which involves the fusion of a serine-proline-rich sequence of AFX1 to the carboxy terminus of a truncated MLL, results in acute lymphocytic leukemia.

CHROMOSOMAL LOCATION

Genetic locus: Foxo4 (mouse) mapping to X C3.

SOURCE

AFX1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AFX1 of mouse origin.

PRODUCT

Each vial contains 200 µg 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-34903 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-34903 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

AFX1 (N-20) is recommended for detection of AFX1 of mouse and rat 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).

Suitable for use as control antibody for AFX1 siRNA (m): sc-29651, AFX1 shRNA Plasmid (m): sc-29651-SH and AFX1 shRNA (m) Lentiviral Particles: sc-29651-V.

AFX1 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

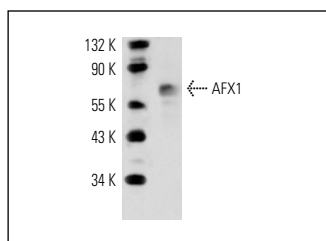
Molecular Weight of AFX1 isoforms: 54/48 kDa

Positive Controls: NIH/3T3 nuclear extract: sc-2138 or MM-142 cell lysate: sc-2246.

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



AFX1 (N-20): sc-34903. Western blot analysis of AFX1 expression in NIH/3T3 nuclear extract.

SELECT PRODUCT CITATIONS

1. Sun, Y.M., et al. 2008. Broad profiling of DNA-binding transcription factor activities improves regulatory network construction in adult mouse tissues. *J. Proteome Res.* 7: 4455-4464.
2. Sun, Y., et al. 2011. PCR DNA-array profiling of DNA-binding transcription factor activities in adult mouse tissues. *Methods Mol. Biol.* 687: 319-331.

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.

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Try **AFX1 (A-7): sc-373877**, our highly recommended monoclonal alternative to AFX1 (N-20).