

Fox-1 (H-81): sc-292242

BACKGROUND

Fox-1, also known as A2BP, A2BP1 or HRNBP1, is a 397 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one RRM domain. Expressed predominately in muscle and brain tissue, Fox-1 interacts with Ataxin-2 and functions as an RNA-binding protein that regulates alternative splicing events during erythropoiesis, specifically by binding to 5'-UGCAUGU-3' DNA elements. Multiple isoforms of Fox-1 exist due to alternative splicing events. The gene encoding Fox-1 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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2. Auweter, S.D., et al. 2006. Molecular basis of RNA recognition by the human alternative splicing factor Fox-1. *EMBO J.* 25: 163-173.
3. Martin, C.L., et al. 2007. Cytogenetic and molecular characterization of A2BP1/FOX1 as a candidate gene for autism. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 144B: 869-876.
4. Zhou, H.L., et al. 2007. Role for Fox-1/Fox-2 in mediating the neuronal pathway of calcitonin/calcitonin gene-related peptide alternative RNA processing. *Mol. Cell. Biol.* 27: 830-841.
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CHROMOSOMAL LOCATION

Genetic locus: RBFOX1 (human) mapping to 16p13.3; Rbfox1 (mouse) mapping to 16 A1.

SOURCE

Fox-1 (H-81) is a rabbit polyclonal antibody raised against amino acids 38-118 mapping near the N-terminus of Fox-1 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.

STORAGE

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

APPLICATIONS

Fox-1 (H-81) is recommended for detection of Fox-1 isoforms 1-5 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).

Fox-1 (H-81) is also recommended for detection of Fox-1 isoforms 1-5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Fox-1 siRNA (h): sc-93015, Fox-1 siRNA (m): sc-145218, Fox-1 shRNA Plasmid (h): sc-93015-SH, Fox-1 shRNA Plasmid (m): sc-145218-SH, Fox-1 shRNA (h) Lentiviral Particles: sc-93015-V and Fox-1 shRNA (m) Lentiviral Particles: sc-145218-V.

Fox-1 (H-81) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Fox-1: 43 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.


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Try **Fox-1 (A-12): sc-515244**, our highly recommended monoclonal alternative to Fox-1 (H-81).