

Fox-3 (N-14): sc-246957

BACKGROUND

Fox-3, also known as NEUN, HRNBP3, RBFOX3 (RNA binding protein, fox-1) or Fox-1 homolog C, is a 350 amino acid protein that contains one RRM (RNA recognition motif) domain. Localized to both the nucleus and cytoplasm, Fox-3 is suggested to regulate alternative splicing events. Fox-3 is encoded by a gene located on human chromosome 17, which is comprised over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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- Evans, S.C. and Lozano, G. 1997. The Li-Fraumeni syndrome: an inherited susceptibility to cancer. *Mol. Med. Today* 3: 390-395.
- Varley, J.M., et al. 1997. A detailed study of loss of heterozygosity on chromosome 17 in tumours from Li-Fraumeni patients carrying a mutation to the TP53 gene. *Oncogene* 14: 865-871.
- Kersemaekers, A.M., et al. 1998. Loss of heterozygosity for defined regions on chromosomes 3, 11 and 17 in carcinomas of the uterine cervix. *Br. J. Cancer* 77: 192-200.
- Soussi, T., et al. 2000. p53 website and analysis of p53 gene mutations in human cancer: forging a link between epidemiology and carcinogenesis. *Hum. Mutat.* 15: 105-113.

CHROMOSOMAL LOCATION

Genetic locus: RBFOX3 (human) mapping to 17q25.3; Rbfox3 (mouse) mapping to 11 E2.

SOURCE

Fox-3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Fox-3 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-246957 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

Fox-3 (N-14) is recommended for detection of Fox-3 of human origin, Hrnbp3 of mouse origin and the corresponding rat homolog 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 Fox-1.

Fox-3 (N-14) is also recommended for detection of Fox-3 in additional species, including bovine.

Suitable for use as control antibody for Hrnbp3 siRNA (m): sc-146080, Hrnbp3 shRNA Plasmid (m): sc-146080-SH and Hrnbp3 shRNA (m) Lentiviral Particles: sc-146080-V.

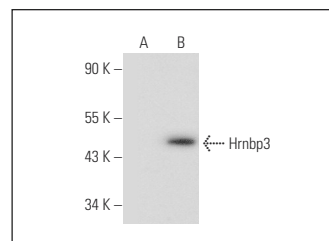
Molecular Weight of Fox-3: 38 kDa.

Positive Controls: Hrnbp3 (m): 293T Lysate: sc-125473.

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



Fox-3 (N-14): sc-246957. Western blot analysis of Hrnbp3 expression in non-transfected: sc-117752 (A) and mouse Hrnbp3 transfected: sc-125473 (B) 293T whole cell lysates.

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.