

Barx2 (m): 293T Lysate: sc-118679

BACKGROUND

Barx2 is a member of the homeobox gene family which are regulators of place-dependent morphogenesis and play important roles in controlling the expression patterns of cell adhesion molecules. The homeodomain encoded by Barx2 is 87% identical to that of Barx1, and both genes are related to genes at the Bar locus of *Drosophila melanogaster*. Barx2 may differentially control the expression of L1 and other target genes during embryonic development. The BARX genes 1 and 2 are Bar class homeobox genes expressed in craniofacial structures during development. In a series of ovarian cancer cell lines, Barx2 expression showed a significant direct correlation with cadherin-6 expression. Barx2 interacts with serum response factor (SRF) and promotes the DNA-binding activity of SRF. Barx2 is expressed in several smooth muscle-containing tissues, as well as skeletal muscle, brain, tongue and esophagus. Barx2 is also highly expressed in adult salivary gland and is expressed at lower levels in other tissues, including mammary gland, kidney and placenta. The human BARX2 gene maps to chromosome 11q25 and encodes a 254 amino acid protein.

REFERENCES

1. Jones, F.S., et al. 1997. Barx2, a new homeobox gene of the Bar class, is expressed in neural and craniofacial structures during development. *Proc. Natl. Acad. Sci. USA* 94: 2632-2637.
2. Hjalt, T.A. and Murray, J.C. 1999. The human BARX2 gene: genomic structure, chromosomal localization, and single nucleotide polymorphisms. *Genomics* 62: 456-459.
3. Sander, G., et al. 2000. Expression of the homeobox gene, BARX2, in wool follicle development. *J. Invest. Dermatol.* 115: 753-756.
4. Krasner, A., et al. 2000. Cloning and chromosomal localization of the human BARX2 homeobox protein gene. *Gene* 250: 171-180.
5. Sellar, G.C., et al. 2001. Barx2 induces cadherin-6 expression and is a functional suppressor of ovarian cancer progression. *Cancer Res.* 61: 6977-6981.
6. Herring, B.P., et al. 2001. Identification of Barx2b, a serum response factor-associated homeodomain protein. *J. Biol. Chem.* 276: 14482-14489.
7. LocusLink Report (LocusID: 8538). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Barx2 (mouse) mapping to 9 A4.

PRODUCT

Barx2 (m): 293T Lysate represents a lysate of mouse Barx2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Barx2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Barx2 antibodies. Recommended use: 10-20 µl per lane.

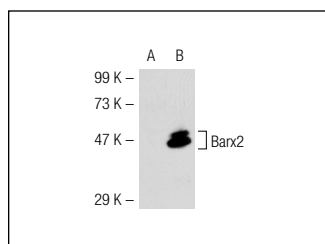
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Barx2 (8A7/1): sc-53177 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Barx2 expression in Barx2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Barx2 (8A7/1): sc-53177. Western blot analysis of Barx2 expression in non-transfected: sc-117752 (A) and mouse Barx2 transfected: sc-118679 (B) 293T whole cell lysates.

RESEARCH USE

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