SANTA CRUZ BIOTECHNOLOGY, INC.

Barx2 (M-186): sc-9128

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 cranio-facial 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 11q24.3 and encodes a 254 amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: BARX2 (human) mapping to 11q24.3; Barx2 (mouse) mapping to 9 A4.

SOURCE

Barx2 (M-186) is a rabbit polyclonal antibody raised against amino acids 73-258 of Barx2 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-9128 X, 200 µg/0.1 ml.

APPLICATIONS

Barx2 (M-186) is recommended for detection of Barx2 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).

Suitable for use as control antibody for Barx2 siRNA (h): sc-43629, Barx2 siRNA (m): sc-62012, Barx2 shRNA Plasmid (h): sc-43629-SH, Barx2 shRNA Plasmid (m): sc-62012-SH, Barx2 shRNA (h) Lentiviral Particles: sc-43629-V and Barx2 shRNA (m) Lentiviral Particles: sc-62012-V.

Barx2 (M-186) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Barx2: 32 kDa.

Positive Controls: Barx2 (m): 293T Lysate: sc-118679 or A-10 cell lysate: sc-3806.

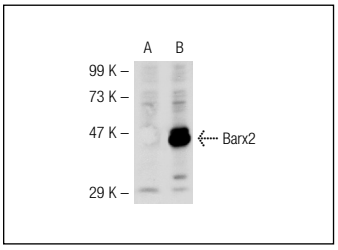
RESEARCH USE

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

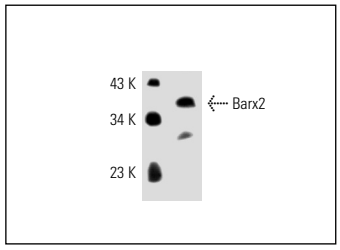
STORAGE

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

DATA



Barx2 (M-186): sc-9128. Western blot analysis of Barx2 expression in non-transfected: sc-117752 (**A**) and mouse Barx2 transfected: sc-118679 (**B**) 293T whole cell lysates.



Barx2 (M-186): sc-9128. Western blot analysis of Barx2 expression in A-10 whole cell lysate.

SELECT PRODUCT CITATIONS

1. 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.
2. Meech, R., et al. 2003. The homeodomain protein Barx2 promotes myogenic differentiation and is regulated by myogenic regulatory factors. J. Biol. Chem. 278: 8269-8278.
3. Stevens, T.A., et al. 2004. Identification of novel binding elements and gene targets for the homeodomain protein Barx2. J. Biol. Chem. 279: 14520-14530.
4. Meech, R., et al. 2005. The homeobox transcription factor Barx2 regulates chondrogenesis during limb development. Development 132: 2135-2146.
5. Makarenkova, H.P., et al. 2009. Barx2 controls myoblast fusion and promotes MyoD-mediated activation of the smooth muscle α-Actin gene. J. Biol. Chem. 284: 14866-14874.

PROTOCOLS

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