SANTA CRUZ BIOTECHNOLOGY, INC.

GBX2 (C-13): sc-22230

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The isthmic organizer signals at the mid/hindbrain boundary (MHB) regulate the development and differentiation of the vertebrate caudal midbrain and the anterior hindbrain. The MHB forms at the boundary of expression between homeobox genes Gbx2 and Otx2. Gbx2 and Otx2 play distinct, essential roles in MHB positioning and development. During development, the GBX2 gene is expressed in the anterior hindbrain. Specifically, Gbx2 negatively regulates Otx2 expression along the anterior-posterior axis; Gbx2- mutants demonstrate an expanded Otx2 domain. During development, the GBX2 gene is expressed in the anterior hindbrain. Gbx2 is expressed in the adult brain, spleen and female genital tract. The GBX2 gene is overexpressed in human prostate cancer cell lines (TSU-prl, PC3, DU145 and LNCaP). Furthermore, downregulation of Gbx2 expression restricts tumorigenicity in human prostate cancer cell lines, which suggests that Gbx2 expression may be required for growth of malignant prostate cells.

CHROMOSOMAL LOCATION

Genetic locus: GBX2 (human) mapping to 2q37.2; Gbx2 (mouse) mapping to 1 D.

SOURCE

GBX2 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GBX2 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-22230 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

GBX2 (C-13) is recommended for detection of GBX2 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). GBX2 (C-13) is also recommended for detection of GBX2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GBX2 siRNA (h): sc-38665, GBX2 siRNA (m): sc-38666, GBX2 shRNA Plasmid (h): sc-38665-SH, GBX2 shRNA Plasmid (m): sc-38666-SH, GBX2 shRNA (h) Lentiviral Particles: sc-38665-V and GBX2 shRNA (m) Lentiviral Particles: sc-38666-V.

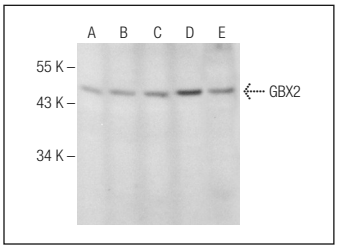
Molecular Weight of GBX1: 37 kDa.

Positive Controls: SW-13 cell lysate: sc-24778, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

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



GBX2 (C-13): sc-22230. Western blot analysis of GBX2 expression in SW-13 (**A**), Jurkat (**B**), NIH/3T3 (**C**) and HeLa (**D**) whole cell lysates and mouse brain tissue extract (**E**).

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.

MONOS Satisfaction Guaranteed

Try **GBX2 (BB-9): sc-81963**, our highly recommended monoclonal alternative to GBX2 (C-13).