

DBX2 (G-12): sc-138238

BACKGROUND

DBX2 (developing brain homeobox protein 2) is a 339 amino acid member of the H2.0 homeobox family. DBX2, which is localized to the nucleus, contains one homeobox DNA-binding domain, a region of 60 amino acids that binds DNA through a helix-turn-helix type of structure. DBX2, which is expressed in the forebrain, midbrain, hindbrain and spinal cord, has been implicated in CNS development. Specifically, DBX2 has been shown to play a role in spinal cord dorsal/ventral patterning, as well as the regionalization of the CNS. DBX2 is also thought to play a role in the production of multiple spinal cord cell types.

REFERENCES

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- Pachikara, A., et al. 2007. Activation of Class I transcription factors by low level Sonic hedgehog signaling is mediated by GLI-2-dependent and independent mechanisms. *Dev. Biol.* 305: 52-62.
- Gribble, S.L., et al. 2007. Regulation and function of DBX genes in the zebrafish spinal cord. *Dev. Dyn.* 236: 3472-3483.
- Kennea, N.L., et al. 2009. Differentiation of human fetal mesenchymal stem cells into cells with an oligodendrocyte phenotype. *Cell Cycle* 8: 1069-1079.
- Wu, C., et al. 2009. ZHX2 Interacts with Ephrin-B and regulates neural progenitor maintenance in the developing cerebral cortex. *J. Neurosci.* 29: 7404-7412.
- Alavian, K.N., et al. 2009. Elevated P75NTR expression causes death of engrailed-deficient midbrain dopaminergic neurons by ERK 1/2 suppression. *Neural Dev.* 4: 11.

CHROMOSOMAL LOCATION

Genetic locus: DBX2 (human) mapping to 12q12.

SOURCE

DBX2 (G-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DBX2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-138238 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

DBX2 (G-12) is recommended for detection of DBX2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with DBX1.

Suitable for use as control antibody for DBX2 siRNA (h): sc-96112, DBX2 shRNA Plasmid (h): sc-96112-SH and DBX2 shRNA (h) Lentiviral Particles: sc-96112-V.

DBX2 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

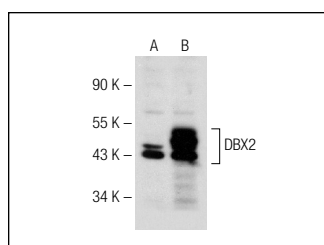
Molecular Weight of DBX2: 37 kDa.

Positive Controls: DBX2 (h): 293T Lysate: sc-128409 or Hep G2 cell lysate: sc-2227.

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.

DATA



DBX2 (G-12): sc-138238. Western blot analysis of DBX2 expression in non-transfected: sc-117752 (A) and human DBX2 transfected: sc-128409 (B) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

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