

## DBX2 (J-25): sc-133500

### 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.
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- 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.
- Rhinn, M., et al. 2009. Zebrafish GBX1 refines the midbrain-hindbrain boundary border and mediates the Wnt-8 posteriorization signal. *Neural Dev.* 4: 12.

### CHROMOSOMAL LOCATION

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

### SOURCE

DBX2 (J-25) is an affinity purified rabbit polyclonal antibody raised against a synthetic DBX2 peptide of human origin.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

### PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### APPLICATIONS

DBX2 (J-25) is recommended for detection of DBX2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Molecular Weight of DBX2: 37 kDa.

Positive Controls: 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).

### RESEARCH USE

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