

Barhl1 (G-14): sc-66730

BACKGROUND

Drosophila gene BarH1 contains a homeobox required for external sensory organ fate determination. Homeobox proteins are regulators of place-dependent morphogenesis and play important roles in controlling the expression patterns of cell adhesion molecules. Barhl1 (BarH-like-1) is hypothesized to play a similar role in mouse and human development. *In situ* hybridization of mouse tissues at various stages of development demonstrate that Barhl1 expression is limited to restricted domains of the developing central nervous system, in particular the diencephalon and rhombencephalon. In the developing CNS, the expression of Barhl1 in migrating cells gives rise to the cerebellar external granular layer.

REFERENCES

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3. Li, S., et al. 2004. Barhl1 regulates migration and survival of cerebellar granule cells by controlling expression of the neurotrophin-3 gene. *J. Neurosci.* 24: 3104-3114.
4. Gould, D.B., et al. 2004. Mutational analysis of Barhl1 and Barx1 in three new patients with Joubert syndrome. *Am. J. Med. Genet. A* 131: 205-208.
5. Sud, R., et al. 2005. Transcriptional regulation by Barhl1 and Brn-3c in organ-of-Corti-derived cell lines. *Brain Res. Mol. Brain Res.* 141:174-180.
6. Offner, N., et al. 2005. The pro-apoptotic activity of a vertebrate Bar-like homeobox gene plays a key role in patterning the *Xenopus* neural plate by limiting the number of chordin- and shh-expressing cells. *Development* 132: 1807-1818.
7. Lopes, C., et al. 2006. BARHL1 homeogene, the human ortholog of the mouse Barhl1 involved in cerebellum development, shows regional and cellular specificities in restricted domains of developing human central nervous system. *Biochem. Biophys. Res. Commun.* 339: 296-304.

CHROMOSOMAL LOCATION

Genetic locus: BARHL1 (human) mapping to 9q34.13; Barhl1 (mouse) mapping to 2 A3.

SOURCE

Barhl1 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Barhl1 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.

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-66730 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-66730 X, 200 µg/0.1 ml.

APPLICATIONS

Barhl1 (G-14) is recommended for detection of Barhl1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Barhl1 siRNA (h): sc-62008, Barhl1 siRNA (m): sc-62009, Barhl1 shRNA Plasmid (h): sc-62008-SH, Barhl1 shRNA Plasmid (m): sc-62009-SH, Barhl1 shRNA (h) Lentiviral Particles: sc-62008-V and Barhl1 shRNA (m) Lentiviral Particles: sc-62009-V.

Barhl1 (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Barhl1: 35.1 kDa.

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) 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.

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.