

# Barhl2 (H-66): sc-68370

## BACKGROUND

Barhl2 is a homeobox containing protein required for the fate determination of external sensory organs in *Drosophila*. Barhl2 (BarH-like 2 homeobox protein), also known as MBH1 in rat (mammalian homolog of BarH), is highly related to BarH2. It is a member of the BAR homeobox family of highly conserved proteins and contains one homeobox DNA-binding domain. Barhl2 localizes to the nucleus and is expressed in the central nervous system as well as in mature and differentiating amacrine, horizontal and ganglion cells of the retina. Barhl2 plays a role in regulating the specification of glycinergic amacrine cells and controls horizontal cell differentiation. Barhl2 may also be involved in the regulation of neural basic helix-loop-helix genes.

## REFERENCES

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2. Lim, J. and Choi, K.W. 2003. Bar homeodomain proteins are anti-proneural in the *Drosophila* eye: transcriptional repression of atonal by Bar prevents ectopic retinal neurogenesis. *Development* 130: 5965-5974.
3. Mo, Z., 2004. Role of the Barhl2 homeobox gene in the specification of glycinergic amacrine cells. *Development* 131: 1607-1618.
4. Poggi, L., et al. 2004. The homeobox gene Xbh1 cooperates with proneural genes to specify ganglion cell fate within the *Xenopus* neural retina. *Development* 131: 2305-2315.
5. 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.
6. Saba, R., et al. 2005. Commissural neuron identity is specified by a homeodomain protein, Mbh1, that is directly downstream of Math1. *Development* 132: 2147-2155.
7. Olson, L.E., et al. 2005. Barx2 functions through distinct corepressor classes to regulate hair follicle remodeling. *Proc. Natl. Acad. Sci. USA* 102: 3708-3713.
8. Balse, E., et al. 2006. Glycine receptors in a population of adult mammalian cones. *J. Physiol.* 571: 391-401.
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## CHROMOSOMAL LOCATION

Genetic locus: BARHL2 (human) mapping to 1p22.2; Barhl2 (mouse) mapping to 5 E5.

## SOURCE

Barhl2 (H-66) is a rabbit polyclonal antibody raised against amino acids 15-80 mapping near the N-terminus of Barhl2 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.

## APPLICATIONS

Barhl2 (H-66) is recommended for detection of BarH-like 2 homeobox protein 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).

Barhl2 (H-66) is also recommended for detection of BarH-like 2 homeobox protein in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Barhl2 siRNA (h): sc-62010, Barhl2 siRNA (m): sc-62011, Barhl2 shRNA Plasmid (h): sc-62010-SH, Barhl2 shRNA Plasmid (m): sc-62011-SH, Barhl2 shRNA (h) Lentiviral Particles: sc-62010-V and Barhl2 shRNA (m) Lentiviral Particles: sc-62011-V.

Barhl2 (H-66) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Barhl2: 42 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). 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.