

# PROX1 (C-12)-R: sc-22135-R

## BACKGROUND

Homeodomain proteins are key regulators in the growth and development of tissues undergoing morphogenesis. PROX1 (homeobox prospero-like protein) is a 737 amino acid transcription factor necessary for progenitor-cell proliferation and cell-fate determination in embryonic tissue. PROX1 is actively expressed in the developing lens and can be detected in embryonic brain, kidney, liver and lung. During maturation, predominant expression is found in heart and liver rather than brain and kidney. The expression pattern of the PROX1 suggests that PROX1 has a role in determining cell fate in a variety of embryonic tissues. PROX1 contains a prospero-type homeobox DNA-binding domain, which conveys PROX1 function as a transcription factor. Decreased PROX1 expression due to hypermethylation suggests that PROX1 may also act as a tumor suppressor.

## REFERENCES

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- Dyer, M.A., et al. 2003. Prox1 function controls progenitor cell proliferation and horizontal cell genesis in the mammalian retina. *Nat. Genet.* 34: 53-58.
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- Birmingham-McDonogh, O., et al. 2006. Expression of Prox1 during mouse cochlear development. *J. Comp. Neurol.* 496: 172-186.
- Shin, J.W., et al. 2006. Prox1 promotes lineage-specific expression of fibroblast growth factor (FGF) receptor-3 in lymphatic endothelium: a role for FGF signaling in lymphangiogenesis. *Mol. Biol. Cell* 17: 576-584.

## CHROMOSOMAL LOCATION

Genetic locus: PROX1 (human) mapping to 1q32.3; Prox1 (mouse) mapping to 1 H6.

## SOURCE

PROX1 (C-12)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PROX1 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-22135 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PROX1 (C-12)-R is recommended for detection of PROX1 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).

PROX1 (C-12)-R is also recommended for detection of PROX1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PROX1 siRNA (h): sc-106451, PROX1 siRNA (m): sc-152489, PROX1 shRNA Plasmid (h): sc-106451-SH, PROX1 shRNA Plasmid (m): sc-152489-SH, PROX1 shRNA (h) Lentiviral Particles: sc-106451-V and PROX1 shRNA (m) Lentiviral Particles: sc-152489-V.

Molecular Weight of PROX1: 83 kDa.

## 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) 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.

## 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.



Try **PROX1 (FM-79): sc-81983**, our highly recommended monoclonal alternative to PROX1 (C-12).