

# PROX1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP2035A

#### **Product Information**

**Application** WB, E **Primary Accession** Q92786

Other Accession P48437, Q91018, NP 002754

Reactivity Human, Mouse

Predicted Chicken
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB2893
Antigen Region 144-175

### **Additional Information**

Other Names Prospero homeobox protein 1, Homeobox prospero-like protein PROX1,

PROX-1, PROX1

Target/Specificity This PROX1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 144-175 amino acids from the

N-terminal region of human PROX1.

**Dilution** WB~~1:1000 E~~Use at an assay dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation

followed by dialysis against PBS.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** PROX1 Antibody (N-term) is for research use only and not for use in

diagnostic or therapeutic procedures.

#### **Protein Information**

# **Background**

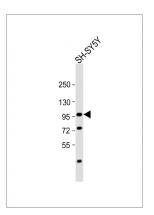
The expression pattern of the Prox1 homeo box gene suggests that it has a role in a variety of embryonic tissues, including lens. Analysis of mRNA reveals that Prox mRNA is present in many different human tissues and that lens demonstrated the highest level. Homozygous Prox1-null mice die at midgestation from multiple developmental defects, and a targeted effect on lens development has been reported. Prox1

inactivation caused abnormal cellular proliferation, downregulated expression of the cell cycle inhibitors Cdkn1b and Cdkn1c, misexpression of E-cadherin, and excessive apoptosis. Consequently, mutant lens cells failed to polarize and elongate properly, resulting in a hollow lens. The Prox1 gene is expressed in a subpopulation of endothelial cells that by budding and sprouting give rise to the lymphatic system. Prox1 appears to be a specific and required regulator of the development of the lymphatic system. Prox1 also has been document to be required for hepatocyte migration in the mouse. Loss of Prox1 results in a smaller liver with a reduced population of clustered hepatocytes. The homeodomain protein Prox1 regulates the egress of progenitor cells from the cell cycle in the embryonic mouse retina. Cells lacking Prox1 are less likely to stop dividing, and ectopic expression of Prox1 forces progenitor cells to exit the cell cycle. Prox1 acts as a key participant in progenitor-cell proliferation and cell-fate determination in the vertebrate retina.

#### References

Nagai, H., et al., Genes Chromosomes Cancer 38(1):13-21 (2003). Dyer, M.A., et al., Nat. Genet. 34(1):53-58 (2003). Hong, Y.K., et al., Dev. Dyn. 225(3):351-357 (2002). Petrova, T.V., et al., EMBO J. 21(17):4593-4599 (2002). Mouta Carreira, C., et al., Cancer Res. 61(22):8079-8084 (2001).

## **Images**



Anti-PROX1 Antibody (C128) at 1:1000 dilution + SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.