

Polyclonal Antibody to PROX-1 - Aff - Purified

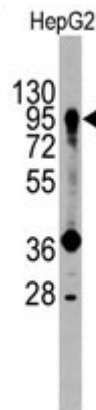
Alternate names:	Homeobox prospero-like protein PROX1, PROX1, Prospero homeobox protein 1
Catalog No.:	AP11901PU-N
Quantity:	0.4 ml
Concentration:	lot specific
Background:	<p>The expression pattern of Prox1 suggests that it has a role in a variety of embryonic tissues, including lens. Prox mRNA is present in many different human tissues with lens demonstrating 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. Prox1 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 documented 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.</p>
Uniprot ID:	Q92786
NCBI:	9606
GeneID:	5629
Host / Isotype:	Rabbit / Ig
Immunogen:	KLH conjugated synthetic peptide selected from the Center region of human PROX1 Remarks: The sequence of the immunogen is 100 % homologous to mouse.
Format:	State: Liquid Ig fraction Purification: Prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. Then the antibody is purified by peptide affinity purification. Buffer System: PBS with 0.09% (W/V) sodium azide
Applications:	ELISA: 1/1,000. Western blot: 1/50 - 1/100. Immunohistochemistry: 1/10 - 1/50. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

For research and in vitro use only. Not for diagnostic or therapeutic work.
Material Safety Datasheets are available at www.acris-antibodies.com or on request.

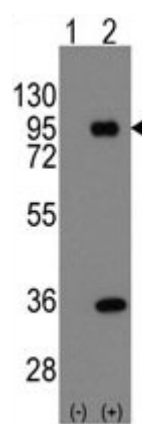
Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- Specificity:** This antibody detects PROX1 at Center.
Species: Human.
 Other species not tested.
- Add. Information:** Molecular weight: 83162 Da
- Storage:** Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer.
 Avoid repeated freezing and thawing.
 Shelf life: one year from despatch.
- General Readings:**
1. Nagai, H., et al., Genes Chromosomes Cancer 38(1):13-21 (2003).
 2. Dyer, M.A., et al., Nat. Genet. 34(1):53-58 (2003).
 3. Hong, Y.K., et al., Dev. Dyn. 225(3):351-357 (2002).
 4. Petrova, T.V., et al., EMBO J. 21(17):4593-4599 (2002).
 5. Mouta Carreira, C., et al., Cancer Res. 61(22):8079-8084 (2001).
 6. Shaham O, Smith AN, Robinson ML, Taketo MM, Lang RA, Ashery-Padan R. Pax6 is essential for lens fiber cell differentiation. Development. 2009 Aug;136(15):2567-78. doi: 10.1242/dev.032888. Epub 2009 Jul 1. PubMed PMID: 19570848.

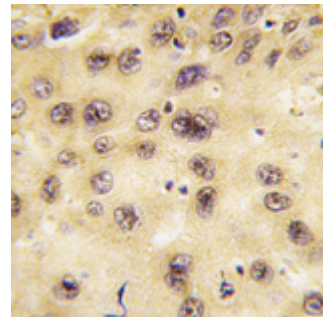
Pictures: Western blot analysis of anti-PROX1 Antibody (Center) (AP11901PU-N) in HepG2 cell line lysates (35 µg/lane). PROX1 (arrow) was detected using the purified Pab (1:60 dilution).



Western blot analysis of PROX1 (arrow) using rabbit polyclonal PROX1 Antibody (Center) (AP11901PU-N). 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected with the PROX1 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PROX1 antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Recommended
Control Peptides:

AP11901CP-N

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