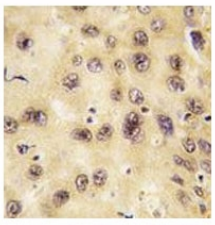
PROX1 Antibody / Prospero homeobox 1 (F47895)

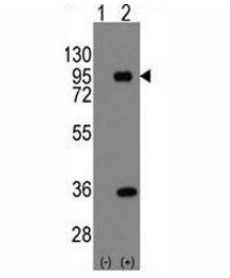
Catalog No.	Formulation	Size
F47895-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47895-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

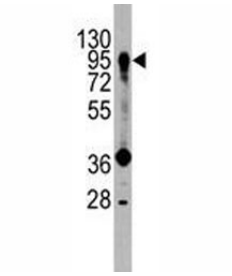
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q92786
Applications	Western blot: 1:1000 IHC (Paraffin): 1:10-1:50
Limitations	This PROX1 antibody is available for research use only.



IHC analysis of FFPE human hepatocarcinoma tissue stained with PROX1 antibody



Western blot analysis of PROX1 antibody and 293 cell lysate (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PROX1 gene (2). Predicted molecular weight is 83 kDa, observed at 80-110 kDa.



Western blot analysis of PROX1 antibody and HepG2 lysate.

Description

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.

Application Notes

Titration of the PROX1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 185-214 from the human protein was used as the immunogen for this PROX1 antibody.

Storage

Aliquot the PROX1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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