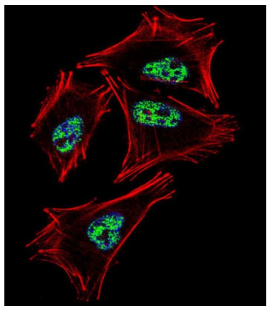
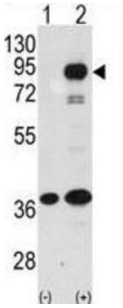
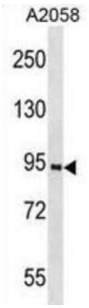
Prospero Homeobox 1 (PROX1) Antibody

Catalogue No.:abx031495







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.

Target:	Prospero Homeobox 1 (PROX1)
Clonality:	Polyclonal
Reactivity:	Human

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Tested Applications:	ELISA, WB, IF/ICC
Host:	Rabbit
Recommended dilutions:	WB: 1/500, IF/ICC: 1/10 - 1/50. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	KLH-conjugated synthetic peptide between 492-522 amino acids from the C-terminal region of human PROX1.
Isotype:	IgG
Form:	Liquid
Purification:	Purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	Q92786 (UniProt, ExPASy)
NCBI Accession:	NP_001257545.1, NP_002754.2
KEGG:	hsa:5629
String:	9606.ENSP00000355925
Molecular Weight:	Calculated MW: 83.2 kDa
Buffer:	PBS containing 0.09% sodium azide.
Specificity:	Predicted to react with Mouse PROX1.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

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