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Datasheet for ABIN357418
anti-PROX1 antibody (Center)

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Overview

Quantity:	0.4 mL
Target:	PROX1
Binding Specificity:	Center
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PROX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	KLH conjugated synthetic peptide selected from the Center region of human PROX1
Isotype:	Ig Fraction
Specificity:	This antibody detects PROX1 at Center.
Purification:	Prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. Then the antibody is purified by peptide affinity purification.

Target Details

Target:	PROX1
Alternative Name:	PROX-1 (PROX1 Products)

Target Details

Background: 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. Synonyms: Homeobox prospero-like protein PROX1, PROX1, Prospero homeobox protein 1

Molecular Weight: 83162 Da

Gene ID: 5629, 9606

UniProt: [Q92786](#)

Pathways: [Stem Cell Maintenance](#), [Regulation of Muscle Cell Differentiation](#)

Application Details

Application Notes: 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.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.25 mg/mL

Buffer: PBS with 0.09 % (W/V) sodium azide

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer.

Publications

- Product cited in:
- Park, Cho, Park, Kim, Park, Myung, Lee, Kweon, Joo: "Prospero homeobox 1 mediates the progression of gastric cancer by inducing tumor cell proliferation and lymphangiogenesis." in: **Gastric cancer : official journal of the International Gastric Cancer Association and the Japanese Gastric Cancer Association**, Vol. 20, Issue 1, pp. 104-115, (2017) ([PubMed](#)).
- Park, Myung, Park, Kim, Oak, Myung, Cho, Lee, Kweon, Kim, Joo: "Impact of prospero homeobox-1 on tumor cell behavior and prognosis in colorectal cancer." in: **American journal of cancer research**, Vol. 5, Issue 11, pp. 3286-300, (2016) ([PubMed](#)).

Images

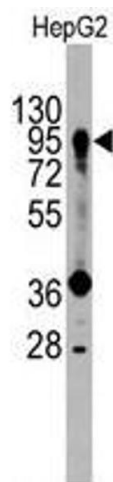


Image 1.

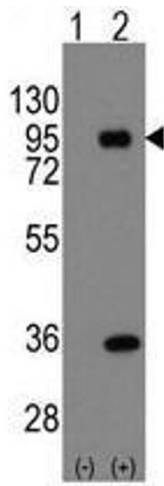


Image 2.

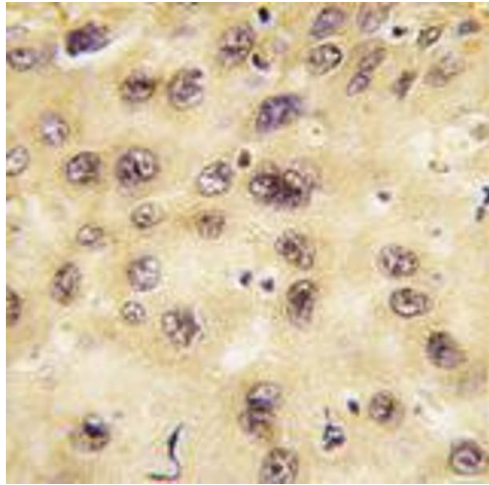


Image 3.