



### Anti-human Prox-1

20221007BB

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-PA32S</b>
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

**Preparation:** Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant human Prox-1 (Ala547-Glu737) from E. coli.

### Target Background

<b>Synonyms:</b>	Prospero homeobox protein 1, PROX1
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Prox-1 is a homeobox gene and acts as a master switch for lymphatic endothelial phenotype. Expression of Prox-1 in blood endothelial cells induces expression of other lymphatic marker genes. Together with Podoplanin, Prox-1 can be used to reliably distinguish lymphatic vessels from blood vessels. Prox1 is expressed in CNS, eye, pancreas, liver and heart, and it is one of the most specific and reliable markers for lymphatic endothelial cells.

The highly conserved C-terminal part of the homeobox transcription factor Prox1 was produced in E. coli. It was not tested for activity and can be used as positive control e.g. in Western analysis.

### Database References Antigen

<b>Protein RefSeq:</b>	NP_002754.2
<b>Uniprot ID:</b>	Q92786
<b>mRNA RefSeq:</b>	NM_002763.3

### Product Specifications

<b>Species reactivity</b>	human
<b>Clone/Ab feature</b>	rabbit IgG
<b>Cross reactivity</b>	ND
<b>Host</b>	rabbit
<b>Clonality</b>	polyclonal
<b>Purification</b>	Protein A purified
<b>Immunogen</b>	Recombinant human Prox-1 (RT #300-052)
<b>Formulation</b>	lyophilized
<b>Buffer</b>	5 mM PBS, pH 7.2

**Stability:** The lyophilized antibody is stable for at least 2 years at -20°C. After sterile reconstitution the antibody is stable at 2-8°C for up to 6 months. Frozen aliquots are stable for at least 6 months when stored at -20°C. Addition of a carrier protein or 50% glycerol is recommended for frozen aliquots.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

<b>Western Blot:</b>	Use 1-5 µg/ml
<b>IF/IHC:</b>	Use 1:750-1000 (IF)
<b>IF/IHC</b>	Use 1 µg/ml

### References

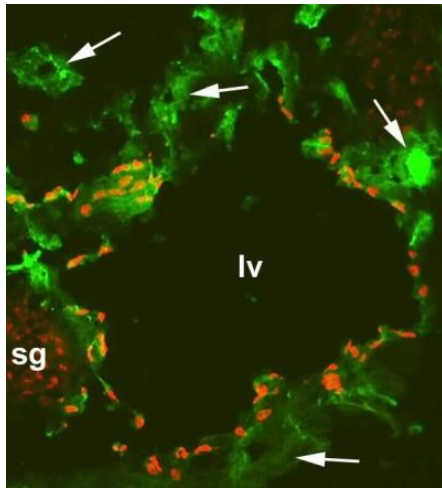
1. Belecky et al., Invest Ophthalmol Vis Sci 38, 1293 (1997)
2. Glasgow, Tomarev, Mech. Dev. 76, 175 (1998)
3. Rodriguez-Niedenfuhr et al., Anat Embryol 204, 399 (2001)
4. Wilting et al., FASEB J 16, 1271 (2002)
5. Krishnan et al., Cancer Res. 63, 713 (2003)
6. Mouta et al., Cancer Res. 61, 8079, (2001)
7. Padera et al., Science 296, 1883 (2002)

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**



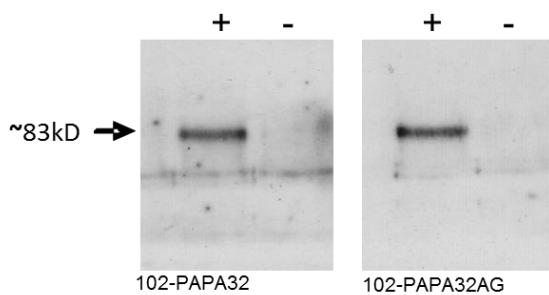
## Anti-human Prox-1

### Handling/Applications

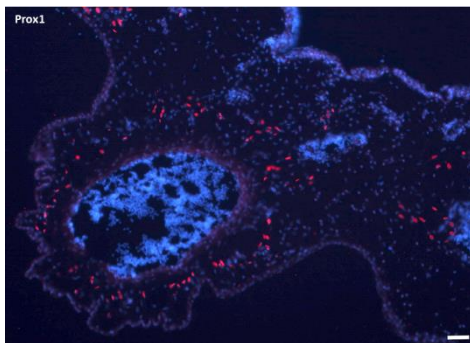


**Fig. 1:** Immunofluorescence with a frozen sections of a mouse embryo at day 13.5 with anti-CD31 [green] and anti-human Prox-1 [red] (RT #102-PA32S). It shows a large lymphatic vessel (lv), blood vessels (arrows) and a sympathetic ganglion (sg) which is also positive for Prox-1

The experiment was performed by PD. Dr. Jörg Wilting, Pädiatrie I, Zentrum für Kinderheilkunde und Jugendmedizin in Göttingen, Germany.



**Fig. 2:** Western analysis with anti-human Prox-1



**Fig. 3:** Prox1 protein in chick CAM detected by immunohistochemistry studies (IHC) using a polyclonal rabbit anti-human Prox1 antibody [1µg/ml]. Prox-1 positive nuclei of lymphatic endothelial cells (LECs) are visible. (10x objective, Bar = 30µm).

The experiment was performed by the research group of Prof. Dr. J. Wilting, University Göttingen, Germany.