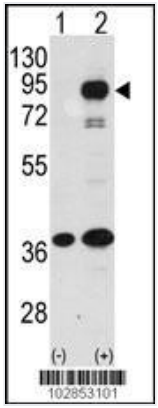
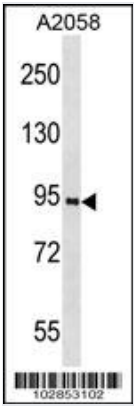
# PROX1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

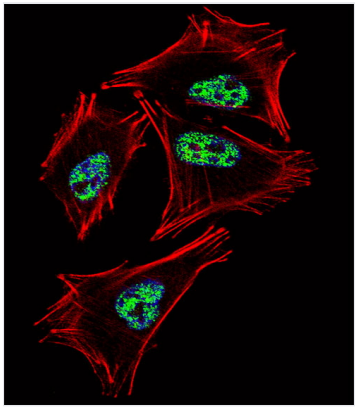
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| **Product Name** | PROX1, Polyclonal Antibody |
| **Full Product Name** | PROX1, CT (Prospero Homeobox Protein 1, Homeobox Prospero-like Protein PROX1, PROX-1) (APC) |
| **Product Gene Name** | anti-PROX1 antibody |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC). |
| **Purity/Purification** | Purified by Protein G Affinity Chromatography. |
| **Specificity** | Recognizes human PROX1. |
| **Preparation and Storage** | May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Do not freeze APC conjugates. Light sensitive. Aliquots are stable for at least 6 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. |
| **Molecular Weight** | 81kDa |
| **OMIM** | 601546 |
| **3D Structure** | ModBase 3D Structure for Q92786 |
| **Immunogen** | Synthetic peptide selected from the C-terminal region (between a portion within aa500~529) of human PROX1 (KLH). |
| **Conjugate** | APC |
| **Note** | Preservative Free |
| **Special Handling** | Light sensitive |
| **Product Categories/Family for anti-PROX1 antibody** | Antibodies; Transcription Factors; Homeobox (HOX) |
| **Applications Tested/Suitable for anti-PROX1 antibody** | Immunohistochemistry (IHC), FLISA, Western Blot (WB) |
| **Application Notes for anti-PROX1 antibody** | IHC: 1:50-1:100<br>FLISA: 1:1,000<br>WB: 1:50-1:1000<br>Applications are based on unconjugated antibody. |
| **Related Product Information for anti-PROX1 antibody** | MBS6495919 is an antibody targeting PROX1. Also known as PROX1, CT (Prospero Homeobox Protein 1, Homeobox Prospero-like Protein PROX1, PROX-1) (APC). Reactive in Human. Host: Rabbit. |
| **Product References and Citations for anti-PROX1 antibody** | 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). |
| **Other Notes** | Small volumes of anti-PROX1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |




**Western Blot (WB) of anti-PROX1 antibody**
Western blot analysis of PROX1 (arrow) using rabbit polyclonal PROX1 Antibody. 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PROX1 gene (Lane 2) (Origene Technologies).




**Western Blot (WB) of anti-PROX1 antibody**
PROX1 Antibody (K507) western blot analysis in A2058 cell line lysates (35ug/lane).This demonstrates the PROX1 antibody detected the PROX1 protein (arrow).



**Immunofluorescence (IF) of anti-PROX1 antibody**
Fluorescent confocal image of A2058 cell stained with PROX1 Antibody (C-term).A2058 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with PROX1 primary antibody (1:25, 1 h at 37 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C).Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C). Nuclei were counterstained with DAPI (blue) (10 ug/ml, 10 min). PROX1 immunoreactivity is localized to Nucleus significantly.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PROX1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 21359846 |
| **NCBI GeneID** | 5629 |
| **NCBI Accession #** | NP_002754 |
| **UniProt Primary Accession #** | Q92786 |
| **UniProt Related Accession #** | Q92786 |
| **GenBank Nucleotide #** | NM_002763.4 |
| **NCBI Official Full Name** | prospero homeobox protein 1 |
| **NCBI Official Synonym Full Names** | prospero homeobox 1 |
| **NCBI Official Symbol** | PROX1 |
| **UniProt Protein Name** | Prospero homeobox protein 1 |
| **UniProt Synonym Protein Names** | Homeobox prospero-like protein PROX1; PROX-1 |

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| **Protein Family** | Prospero homeobox protein |
| **UniProt Gene Name** | PROX1 |
| **UniProt Synonym Gene Names** | PROX-1 |
| **UniProt Entry Name** | PROX1_HUMAN |
| **NCBI Protein Information** | prospero homeobox protein 1 |
| **NCBI Summary for PROX1** | The protein encoded by this gene is a member of the homeobox transcription factor family. Members of this family contain a homeobox domain that consists of a 60-amino acid helix-turn-helix structure that binds DNA and RNA. The protein encoded by this gene is conserved across vertebrates and may play an essential role during development. Altered levels of this protein have been reported in cancers of different organs, such as colon, brain, blood, breast, pancreas, liver and esophagus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2012] |
| **UniProt Comments for PROX1** | PROX1: May play a fundamental role in early development of CNS. May regulate gene expression and development of postmitotic undifferentiated young neurons. Belongs to the Prospero homeobox family.<br><br>Protein type: DNA-binding; Transcription factor; Nuclear receptor co-regulator<br><br>Chromosomal Location of Human Ortholog: 1q41<br><br>Cellular Component: cytoplasm; nucleus<br><br>Molecular Function: RNA polymerase II transcription factor activity, enhancer binding; ligand-dependent nuclear receptor binding; protein binding; DBD domain binding; DNA binding; LBD domain binding; transcription factor activity; transcription corepressor activity<br><br>Biological Process: transcription from RNA polymerase II promoter; lens development in camera-type eye; circadian rhythm; neural tube development; positive regulation of cyclin-dependent protein kinase activity; ventricular cardiac myofibril development; muscle thin filament assembly; atrial cardiac muscle morphogenesis; positive regulation of transcription, DNA-dependent; cell fate determination; negative regulation of transcription from RNA polymerase II promoter; olfactory placode formation; negative regulation of cell proliferation; venous blood vessel morphogenesis; pancreas development; positive regulation of cell proliferation; lymphangiogenesis; ventricular cardiac muscle morphogenesis; kidney development; response to nutrient levels; dentate gyrus development; negative regulation of transcription factor activity; positive regulation of cell cycle; liver development; regulation of circadian rhythm; cerebellar granule cell differentiation; dorsal spinal cord development; negative regulation of viral genome replication; regulation of gene expression; otic placode formation; embryonic retina morphogenesis in camera-type eye; positive regulation of endothelial cell proliferation; optic placode formation involved in camera-type eye; positive regulation of transcription from RNA polymerase II promoter; brain development; negative regulation of transcription, DNA-dependent; retina morphogenesis in camera-type eye; lung development |
| **Research Articles on PROX1** | **1.** PROX1 expression was detected in gastric cancer tissues at various levels. PROX1 expression levels were positively correlated with cancer stage, N factor, lymphatic vascular invasion, and vascular invasion in patients with gastric cancer. |
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