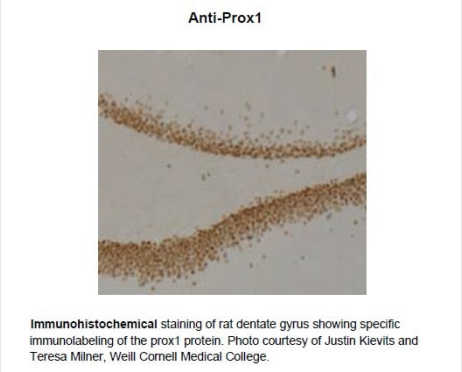
PROX1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	Prox1, Monoclonal Antibody
Full Product Name	Anti-Prox1
Product Gene Name	anti-PROX1 antibody
Clonality	Monoclonal
Isotype	IgG1
Clone Number	5G10
Host	Mouse
Species Reactivity	Chicken, human, mouse, rat
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.
Purity/Purification	Protein G purified (Protein G purified culture supernatant.)
Specificity	Specifically labels prox1 in formalin-fixed, paraffin-embedded tissue.
Preparation and Storage	Store at -20 degree C in undiluted aliquots; stable for at least one year after date of receipt. Avoid freeze/thaw cycles.
Molecular Weight	83,203 Da
Chromosome Location	Chromosome: 1; NC_000001.11 (213987935..214041510). Location: 1q41
OMIM	601546
3D Structure	ModBase 3D Structure for Q92786
Antigen	Recombinant human Prox1 protein.
Immunogen Information	Recombinant human Prox1 protein
Immunogen Species	Human
Species Reactivity Note	The antibody has been directly tested for reactivity in human, rat, mouse and chicken. It is expected to have wide species cross reactivity.
Biological Significance	Prox1 (Prospero-related homeobox 1) is a divergent homeogene that regulates cell proliferation, fate determination and differentiation during vertebrate embryonic development. The protein is expressed in the developing lens and is also detected in embryonic brain, lung, liver and kidney; while in adult it is more abundant in heart and liver than in brain, skeletal muscle, kidney and pancreas (Chen et al., 2006). Prox1 is thought to play a fundamental role in early development of the CNS and may regulate gene expression and development of postmitotic undifferentiated young neurons (Misra et al., 2008)
Applications Tested/Suitable for anti-PROX1 antibody	Immunohistochemistry (IHC)
Application Notes for anti-PROX1 antibody	Quality Control: IHC performed on each lot. IHC: 1:1,000
Related Product Information for anti-PROX1 antibody	MBS500038 is an antibody targeting PROX1. Also known as Anti-Prox1. Reactive in Chicken, human, mouse, rat. Host: Mouse. Mouse monoclonal antibody

Product References and Citations for anti-PROX1 antibody	• Xiaoren Chen, Tapan P. Patel, William J. Cain, Melinda K. Duncan. Production of monoclonal antibodies against Prox1. Hybridoma (2006) Feb;25(1):27-33. • Misra K, Gui H, Matise MP (2008) Prox1 regulates a transitory state for interneuron neurogenesis in the spinal cord. Dev Dyn 237(2):393-402.
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.



Testing Data of anti-PROX1 antibody

ADDITIONAL DETAILS

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

NCBI GI #	397174762
NCBI GeneID	5629
NCBI Accession #	NP_001257545.1
UniProt Primary Accession #	Q92786
UniProt Secondary Accession #	Q5SW76; Q8TB91; A6NK29; A8K2B1
UniProt Related Accession #	Q92786
GenBank Nucleotide #	NM_001270616.1
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
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; prospero-related homeobox 1; homeobox prospero-like protein PROX1

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	Function: May play a fundamental role in early development of CNS. May regulate gene expression and development of postmitotic undifferentiated young neurons By similarity. Subcellular location: Nucleus Probable. Tissue specificity: Most actively expressed in the developing lens. Detected also in embryonic brain, lung, liver and kidney. In adult, it is more abundant in heart and liver than in brain, skeletal muscle, kidney and pancreas. Sequence similarities: Belongs to the Prospero homeobox family.Contains 1 Prospero-type homeobox DNA-binding domain. Sequence caution: The sequence CAI15309.1 differs from that shown. Reason: Erroneous gene model prediction.
Research Articles on PROX1	**1.** PROX1 promotes hepatocellular carcinoma metastasis by way of up-regulating hypoxia-inducible factor 1alpha expression and protein stability.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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