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Anti-PROX1 Antibody

Catalog # ABO11539

Product Information

Application	WB
Primary Accession	Q92786
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Prospero homeobox protein 1(PROX1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5629
Other Names	Prospero homeobox protein 1, Homeobox prospero-like protein PROX1, PROX-1, PROX1
Calculated MW	83203
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Subcellular Localization	Nucleus . RORG promotes its nuclear localization. .
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. .
Source	Eukaryota
Protein Name	Prospero homeobox protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human PROX1(346-359aa KHLAETLKQELNTA), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the Prospero homeobox family.

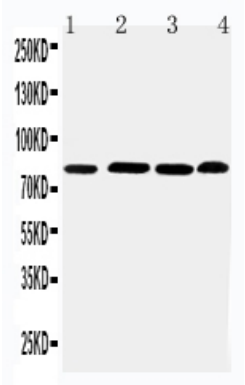
Protein Information

Name	PROX1
Function	Transcription factor involved in developmental processes such as cell fate determination, gene transcriptional regulation and progenitor cell regulation in a number of organs. Plays a critical role in embryonic development and functions as a key regulatory protein in neurogenesis and the development of the heart, eye lens, liver, pancreas and the lymphatic system. Involved in the regulation of the circadian rhythm. Represses: transcription of the retinoid-related orphan receptor RORG, transcriptional activator activity of RORA and RORG and the expression of RORA/G-target genes including core clock components: BMAL1, NPAS2 and CRY1 and metabolic genes: AVPR1A and ELOVL3.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:P48437}. Note=RORG promotes its nuclear localization. {ECO:0000250|UniProtKB:P48437}
Tissue Location	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.

Background

Prospero homeobox protein 1, also called PROX1 is a protein that in humans is encoded by the PROX1 gene. This gene is mapped to 1q32.3. 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.

Images



Anti-PROX1 antibody, ABO11539, Western blottingLane 1: Rat Thymus Tissue LysateLane 2: HELA Cell LysateLane 3: JURKAT Cell LysateLane 4: MM231 Cell Lysate