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Lhx4 Rabbit pAb

Catalog # AP99851

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q969G2
Other Accession	Q969G2
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43124
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Lhx4
Epitope Specificity	171-280/390
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 homeobox DNA-binding domain. Contains 2 LIM zinc-binding domains.
DISEASE	Defects in LHX4 are the cause of pituitary hormone deficiency combined type 4 (CPHD4) [MIM:262700]; also known as short stature pituitary and cerebellar defects and small sella turcica. The disorder is characterized by short stature, pituitary and cerebellar defects, and small transverse depression crossing the midline on the superior surface of the body of the sphenoid bone which houses the pituitary gland.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The LIM domain (a zinc finger structure) is a protein-protein interaction motif found in several protein types, including homeodomain transcription factors and kinases, which has a role in many cellular processes. The LIM family of homeodomain proteins plays a role in organismal differentiation and development. Specifically, LHX4 and closely related LHX3 play essential roles in multiple developmental stages of the pituitary gland in mice. The LHX4 gene is expressed in murine fetal brain, spinal cord and cerebral cortex. In addition, LHX4 is expressed in the cerebral cortex and in the motor neurons of the CNS in adult rodents. A specific murine LHX4 gene mutation results in a short stature phenotype, pituitary and cerebelllar defects and sella turcica malformations. The LHX4 gene may be implicated in the t(1;4)(q25;q32) chromosomal translocation, which is associated with acute lymphoblastic leukemia. The LHX4 gene is also expressed in leukemic cells and may activate leukemogenesis. The human LHX4 gene maps to chromosome 1q25 and encodes a 390 amino acid protein.

Additional Information

Gene ID	89884

Other Names	CPHD4; A330062J17Rik; Gsh-4; Gsh4; LHX4_HUMAN; LHX4; LIM homeobox protein 4; LHX4_MOUSE; LIM homeobox 4
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	LHX4
Function	May play a critical role in the development of respiratory control mechanisms and in the normal growth and maturation of the lung. Binds preferentially to methylated DNA (PubMed:28473536).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108}.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.