

HESX1 Rabbit pAb

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Catalog # AP55213

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UBX0
Reactivity	Rat
Predicted	Pig, Dog, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	21409
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HESX1
Epitope Specificity	51-150/185
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclear
DISEASE	Septooptic dysplasia (SOD) [MIM:182230]: A clinically heterogeneous disorder defined by any combination of optic nerve hypoplasia, pituitary gland hypoplasia with panhypopopituitarism, and midline abnormalities of the brain, including absence of the corpus callosum and septum pellucidum. Note=The disease is caused by mutations affecting the gene represented in this entry. Growth hormone deficiency with pituitary anomalies (GHDPA) [MIM:182230]: A disease characterized by low or absent growth hormone levels, in the presence of a hypoplastic anterior pituitary lobe and ectopic or absent posterior pituitary lobe. Note=The disease is caused by mutations affecting the gene represented in this entry. Pituitary hormone deficiency, combined, 5 (CPHD5) [MIM:182230]: Combined pituitary hormone deficiency is defined as the impaired production of growth hormone and one or more of the other five anterior pituitary hormones. CPHD5 is characterized by complete or partial deficiencies of growth hormone, thyroid-stimulating hormone, luteinizing hormone, follicle stimulating hormone and adrenocorticotrophic hormone. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The homeobox protein, HESX1, which is also known as Rathke's pouch homeobox, HANF, homeodomain transcription factor, and anterior-restricted homeobox protein is a transcription factor that belongs to the homeodomain family of DNA binding proteins. HESX1 is initially expressed in embryonic stem cells and the primitive forebrain, and is essential for normal development of the eyes and other anterior CNS structures, such as the hypothalamus, the pituitary gland and the olfactory bulbs. The homeobox gene Hesx1 is expressed in the anterior visceral endoderm (AVE), anterior axial mesendoderm (AME), and anterior neural ectoderm (ANE) during early embryogenesis. Mutations in the Hesx1 gene are associated with disorders

that are comparable with septo-optic dysplasia (SOD). These disorders are characterized by hypoplasia of the optic nerve, various types of forebrain defects and pituitary hormone deficiencies, including hypothyroidism. Hesx1 also acts as a transcriptional repressor of reporter gene constructs in tissue culture assays.

Additional Information

Gene ID	8820
Other Names	Homeobox expressed in ES cells 1, Homeobox protein ANF, hAnf, HESX1, HANF
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

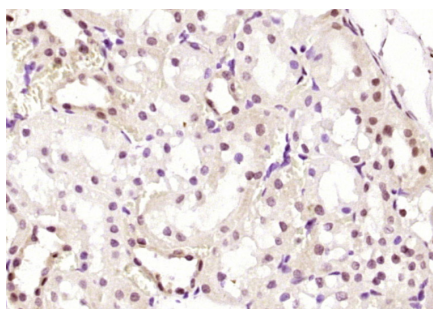
Protein Information

Name	HESX1
Synonyms	HANF
Function	Required for the normal development of the forebrain, eyes and other anterior structures such as the olfactory placodes and pituitary gland. Possible transcriptional repressor. Binds to the palindromic PIII sequence, 5'-AGCTTGAGTCTAATTGAATTAAGTGTAC-3'. HESX1 and PROP1 bind as heterodimers on this palindromic site, and, in vitro, HESX1 can antagonize PROP1 activation.
Cellular Location	Nucleus.

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HESX1) Polyclonal Antibody, Unconjugated (AP55213) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.