



Rabbit Anti-HESX1 antibody

SL13597R

Product Name:	HESX1
Chinese Name:	同源结构域转录因子HESX1抗体
Alias:	HESX1 HUMAN; Homeobox expressed in ES cells 1; Homeobox protein ANF; hAnf.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	21kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human HESX1:51-150/185
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	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 <i>Hex1</i> 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.

Function:

Homeobox protein expressed in embryonic stem cells and targeted by Sox2, Oct4 and Nanog. Required for the normal development of the forebrain, eyes and other anterior structures such as the olfactory placodes and pituitary gland. Possible transcriptional repressor.

Subunit:

Can form heterodimers with PROP1 in binding to DNA. Interacts with TLE1.

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 panhypopituitarism, 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.

Similarity:

Belongs to the ANF homeobox family.

Contains 1 homeobox DNA-binding domain.

SWISS:

Q52LC5

Gene ID:

8820

Database links:

[Entrez Gene: 8820](#) Human

[Omir: 601802](#) Human

[SwissProt: Q52LC5](#) Human

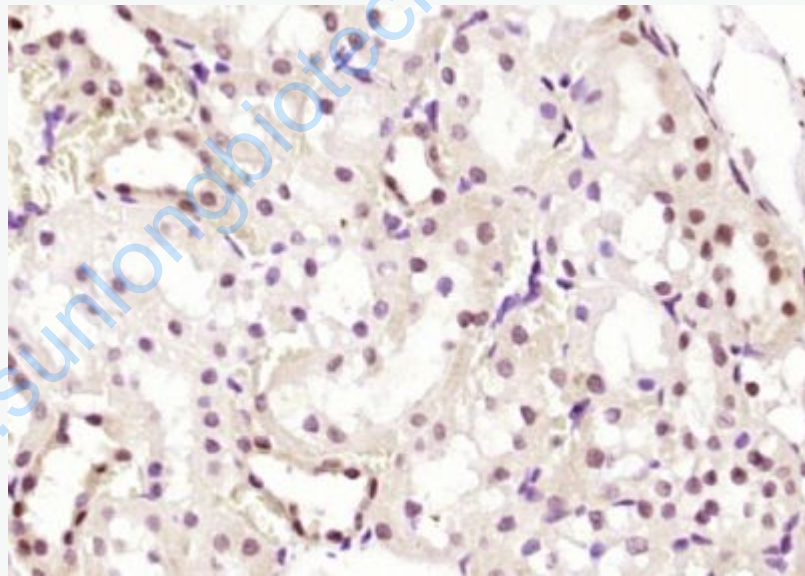
[SwissProt: Q9UBX0](#) Human

[Unigene: 171980](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



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 (SL13597R) at 1:200 overnight at 4°C, followed by operating according to SP

Kit(Rabbit) (sp-0023) instructions and DAB staining.

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