



## Rabbit Anti-HOXA2 antibody

SL17362R

<b>Product Name:</b>	HOXA2
<b>Chinese Name:</b>	同源盒蛋白A2抗体
<b>Alias:</b>	AI324701; homeo box A2; homeobox A2; Homeobox protein Hox-1K; Homeobox protein Hox-A2; Hox-1.11; HOX1.11; HOX1K; Hoxa-2; Hoxa11; HOXA2; HXA2_HUMAN; MGC151482; MGC151484; RATHOX111A.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
<b>Applications:</b>	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.
<b>Molecular weight:</b>	41kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human HOXA2:221-320/376
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	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.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	HOX genes play a fundamental role in the development of the vertebrate central nervous system, heart, axial skeleton, limbs, gut, urogenital tract and external genitalia. The homeobox gene Hoxa-1 is transcriptionally regulated by retinoic acid (RA) and encodes a transcription factor, which has been shown to play important roles in cell differentiation and embryogenesis. Hoxa-1 is also expressed in cancers, such as

mammary tumors, though it is not expressed in normal gland or in precancerous mammary tissues. At embryonic stages, Hoxa-2 is expressed in the mesenchyme and epithelial cells of palate, however its expression is restricted to the tips of the growing palatal shelves. Hoxa-2 protein is predominantly expressed in the nuclei of cells in the ventral mantle region of the developing embryo. In the developing and adult mouse spinal cord, Hoxa-2 protein may contribute to dorsal-ventral patterning and/or to the specification of neuronal phenotype. Hoxa-7 functions as a potent transcriptional repressor and its action as such requires several domains, including both activator and repressor regions. Hoxa-7 is expressed in the fetal liver, lung, skeletal muscle, kidney, pancreas and placenta

**Function:**

Sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis.

**Subcellular Location:**

Nucleus.

**DISEASE:**

Defects in HOXA2 are a cause of microtia hearing impairment and cleft palate (MHICP) [MIM:612290]. Microtia is a congenital deformity of the outer ear and occurs in approximately one in 8'000-10'000 births. It is characterized by a small, abnormally shaped outer ear. It can be unilateral or bilateral. Syndromic forms of microtia occur in conjunction with other abnormalities. The most common associated malformations is the cleft palate, a congenital fissure of the soft and/or hard palate due to faulty fusion. Defects in HOXA2 are a cause of autosomal-recessive bilateral microtia, mixed symmetrical severe to profound hearing impairment and partial cleft palate.

**Similarity:**

Belongs to the Antp homeobox family. Proboscipedia subfamily.  
Contains 1 homeobox DNA-binding domain.

**SWISS:**

O43364

**Gene ID:**

3199

**Database links:**

[Entrez Gene: 3199](#) Human

[Entrez Gene: 15399](#) Mouse

[Entrez Gene: 24452](#) Rat

[Oimim: 604685](#) Human

[SwissProt: O43364](#) Human

[SwissProt: P31245](#) Mouse

[SwissProt: P31246](#) Rat

[Unigene: 445239](#) Human

[Unigene: 592177](#) Human

[Unigene: 131](#) Mouse

[Unigene: 91077](#) Rat

**Important Note:**

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