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HOXA2 Rabbit pAb

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Catalog # AP56671

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O43364
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41002
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HOXA2
Epitope Specificity	221-320/376
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	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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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

Additional Information

Gene ID	3199
Other Names	Homeobox protein Hox-A2, Homeobox protein Hox-1K, HOXA2, HOX1K
Dilution	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	HOXA2
Synonyms	HOX1K
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.
Cellular Location	Nucleus.

Background

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