



Rabbit Anti-HOXA1 antibody

SL17361R

Product Name:	HOXA1
Chinese Name:	同源盒蛋白A1抗体
Alias:	BSAS; Homeo box A1; Homeobox 1F; Homeobox A1; Homeobox protein Hox A1; Homeobox protein Hox-1F; Homeobox protein Hox-A1; Hox 1.6 like protein; Hox 1F; HOX A1; HOX A1 homeodomain protein; HOX1; HOX1F; hoxa1; hoxb1b; HXA1 HUMAN; Lab like protein; MGC45232.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,
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:	37kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human HOXA1:151-250/335
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:	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 HoxA1 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. HoxA1 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, HoxA2 is expressed in the mesenchyme and epithelial cells of the palate, however its expression is restricted to the tips of the growing palatal shelves. HoxA2 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, HoxA2 protein may contribute to dorsal-ventral patterning and/or to the specification of neuronal phenotype. HoxA7 functions as a potent transcriptional repressor and its action as such requires several domains, including both activator and repressor regions. HoxA7 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. Acts on the anterior body structures. Seems to act in the maintenance and/or generation of hindbrain segments.

Subcellular Location:

Nucleus.

DISEASE:

Defects in HOXA1 are the cause of Athabaskan brainstem dysgenesis syndrome (ABDS) [MIM:601536]; also known as Narvajo brainstem syndrome. This syndrome is characterized by horizontal gaze palsy, sensorineural deafness, central hypoventilation, and developmental delay. Some patients had swallowing dysfunction, vocal cord paralysis, facial paresis, seizures, and cardiac outflow tract anomalies. Defects in HOXA1 are the cause of Bosley-Salih-Alorainy syndrome (BSAS) [MIM:601536]. Affected individuals show horizontal gaze abnormalities, deafness, facial weakness, vascular malformations of the internal carotid arteries and cardiac outflow tract. Some patients manifest mental retardation and autism spectrum disorder. In contrast to individuals with ABSD, central hypoventilation is not observed in individuals with BSAS.

Similarity:

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

SWISS:

P49639

Gene ID:

3198

Database links:

[Entrez Gene: 3198](#) Human

[Entrez Gene: 15394](#) Mouse

[Entrez Gene: 25607](#) Rat

[Omim: 142955](#) Human

[SwissProt: P49639](#) Human

[SwissProt: P09022](#) Mouse

[SwissProt: O08656](#) Rat

[Unigene: 67397](#) Human

[Unigene: 197](#) Mouse

[Unigene: 228589](#) Rat

[Unigene: 9780](#) Rat

Important Note:

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