# HOXA1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | HOXA1, Polyclonal Antibody |
| **Full Product Name** | HOXA1 (Homeobox Protein Hox-A1, Homeobox Protein Hox-1F, HOX1F, MGC45232) (MaxLight 750) |
| **Product Gene Name** | anti-HOXA1 antibody |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750. |
| **Purity/Purification** | Purified by Protein A Affinity Chromatography. |
| **Specificity** | Recognizes human HOXA1. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo |
| **Molecular Weight** | 36,641 Da |
| **Chromosome Location** | Chromosome: 7; NC_000007.13 (27132612..27135625, complement). Location: 7p15.3 |
| **OMIM** | 142955 |
| **3D Structure** | ModBase 3D Structure for P49639 |
| **Immunogen** | Full length human HOXA1, aa1-335 (NP_005513.1). |
| **Immunogen Sequence** | MDNARMNSFLEYPILSSGDSGTCSARAYPSDHRITTFQSCAVSANSCGGDDRFLVGRGVQIGSPHHHHHHHHHHPQPATYQTSGNLGVSYSHSSCGPS |
| **Conjugate** | MaxLight750 |
| **Note** | Preservative Free |
| **Product Categories/Family for anti-HOXA1 antibody** | Antibodies; Transcription Factors; Homeobox (HOX) |
| **Applications Tested/Suitable for anti-HOXA1 antibody** | Western Blot (WB) |
| **Application Notes for anti-HOXA1 antibody** | Applications are based on unconjugated antibody. |

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| **Related Product Information for anti-HOXA1 antibody** | Sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the an |
| **Other Notes** | Small volumes of anti-HOXA1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If neces |
| **Searchable Terms for HOXA1 purchase** | MBS6381516 is an antibody targeting HOXA1. Also known as HOXA1 (Homeobox Protein Hox-A1, Homeobox Protein Hox-1F, HOX1F, MGC45232) (I |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HOXA1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 5031761 |
| **NCBI GeneID** | 3198 |
| **NCBI Accession #** | NP_005513.1 |
| **UniProt Primary Accession #** | P49639 |
| **UniProt Secondary Accession #** | O43363; A4D184; B2R8U7 |
| **UniProt Related Accession #** | P49639 |
| **GenBank Nucleotide #** | NM_005522.4 |
| **NCBI Official Full Name** | homeobox protein Hox-A1 isoform a |
| **NCBI Official Synonym Full Names** | homeobox A1 |
| **NCBI Official Symbol** | HOXA1 |
| **NCBI Official Synonym Symbols** | BSAS; HOX1; HOX1F |
| **UniProt Protein Name** | Homeobox protein Hox-A1 |
| **UniProt Synonym Protein Names** | Homeobox protein Hox-1F |
| **Protein Family** | Homeobox protein |
| **UniProt Gene Name** | HOXA1 |
| **UniProt Synonym Gene Names** | HOX1F |
| **UniProt Entry Name** | HXA1_HUMAN |
| **NCBI Protein Information** | homeobox protein Hox-A1; homeobox 1F; homeo box A1; lab-like protein; Hox 1.6-like protein; homeobox protein Hox-1F; HOX A1 homeodomain protein |
| **NCBI Summary for HOXA1** | In vertebrates, the genes encoding the class of transcription factors called homeobox genes are found in clusters named A, B, C, and D on four separate chromosomes. Expression of these proteins is spatially and temporally regulated during embryonic development. This gene is part of the A cluster on chromosome 7 and encodes a DNA-binding transcription factor which may regulate gene expression, morphogenesis, and differentiation. The encoded protein may be involved in the placement of hindbrain segments in the proper location along the anterior-posterior axis during development. Two transcript variants encoding two different isoforms have been found for this gene, with only one of the isoforms containing the homeodomain region. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for HOXA1** | HOXA1: 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. Defects in HOXA1 are the cause of Athabaskan brainstem dysgenesis syndrome (ABDS); 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). Affected individuals show horizontal gaze abnormalities, deafness, facial weakness, vascular malformations of the internal carotid arteries and cardiac outflow trac. Some patients manifest mental retardation and autism spectrum disorder. In contrast to individuals with ABSD, central hypoventilation is not observed in individuals with BSAS. Belongs to the Antp homeobox family. Labial subfamily. 3 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: DNA-binding; Oncoprotein; Transcription factor<br><br>Chromosomal Location of Human Ortholog: 7p15.3<br><br>Cellular Component: nucleus<br><br>Molecular Function: protein binding; sequence-specific DNA binding<br><br>Biological Process: facial nerve structural organization; anatomical structure morphogenesis; central nervous system neuron differentiation; facial nucleus development; transcription, DNA-dependent; multicellular organismal development; neuromuscular process; outer ear morphogenesis; motor axon guidance; rhombomere 4 development; anterior/posterior pattern formation; sensory perception of sound; optokinetic behavior; artery morphogenesis; embryonic neurocranium morphogenesis; positive regulation of transcription from RNA polymerase II promoter; cognition; rhombomere 5 development; inner ear development; rhombomere 3 development; regulation of behavior; abducens nerve formation<br><br>Disease: Athabaskan Brainstem Dysgenesis Syndrome |
| **Research Articles on HOXA1** | **1.** Overexpression of HOXA1 is associated with hepatocellular carcinoma. |
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