HOXA1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HOXA1, Polyclonal Antibody
Full Product Name	HOXA1, NT (HOXA1, HOX1F, Homeobox protein Hox-A1, Homeobox protein Hox-1F) (MaxLight 750)
Product Gene Name	anti-HOXA1 antibody
Product Synonym Names	HOXA1; HOX1F; Homeobox protein Hox-A1; Homeobox protein Hox-1F
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
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.
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 amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
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	HOXA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-35 amino acids from the N-terminal region of human HOXA1.
Conjugate	MaxLight750
Note	Preservative Free
Product Categories/Family for anti-HOXA1 antibody	Antibodies; Transcription Factors; Zinc; Ring; Homeobox
Applications Tested/Suitable for anti-HOXA1 antibody	Western Blot (WB), FLISA
Application Notes for anti-HOXA1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-HOXA1 antibody	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.

Product References and Citations for anti-HOXA1 antibody	Rankin, J.K., et al. J AAPOS 14(1):78-80(2010). Muscarella, L.A., et al. Mol Autism 1 (1), 9 (2010): Canu, E., et al. J Neuroimaging 19(4):353-358(2009). Gratacos, M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009): Chakrabarti, B., et al. Autism Res 2(3):157-177(2009).
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 necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HOXA1 purchase	MBS6307647 is an antibody targeting HOXA1. Also known as HOXA1, NT (HOXA1, HOX1F, Homeobox protein Hox-A1, Homeobox protein Hox-1F) (MaxLight 750). Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

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

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

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. Protein type: DNA-binding; Oncoprotein; Transcription factor Chromosomal Location of Human Ortholog: 7p15.3 Cellular Component: nucleus Molecular Function: protein binding; sequence-specific DNA binding 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 Disease: Athabaskan Brainstem Dysgenesis Syndrome
Research Articles on HOXA1	**1.** Overexpression of HOXA1 is associated with hepatocellular carcinoma.
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