SIX5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SIX5, Polyclonal Antibody
Full Product Name	SIX5, ID (SIX5, DMAHP, Homeobox protein SIX5, DM locus-associated homeodomain protein, Sine oculis homeobox homolog 5) (MaxLight 490)
Product Gene Name	anti-SIX5 antibody
Product Synonym Names	SIX5; DMAHP; Homeobox protein SIX5; DM locus-associated homeodomain protein; Sine oculis homeobox homolog 5
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 MaxLight490.
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: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	74,562 Da
Chromosome Location	Chromosome: 19; NC_000019.9 (46268043..46272497, complement). Location: 19q13.32
OMIM	600963
3D Structure	ModBase 3D Structure for Q8N196
Immunogen	SIX5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 264-294 amino acids from the Central region of human SIX5.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-SIX5 antibody	Antibodies; Transcription Factors; Zinc; Ring; Homeobox
Applications Tested/Suitable for anti-SIX5 antibody	Immunohistochemistry (IHC), FLISA, Western Blot (WB)
Application Notes for anti-SIX5 antibody	IHC: 1:10-50 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-SIX5 antibody	The protein encoded by this gene is a homeodomain-containing transcription factor that appears to function in the regulation of organogenesis. This gene is located downstream of the dystrophia myotonica-protein kinase gene. Mutations in this gene are a cause of branchiootorenal syndrome type 2.
Product References and Citations for anti-SIX5 antibody	Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010). Oguri, M., et al. Am. J. Hypertens. 23(1):70-77(2010). Hoskins, B.E., et al. Am. J. Hum. Genet. 80(4):800-804(2007). Sato, S., et al. Hum. Mol. Genet. 11(9):1045-1058(2002). Fougerousse, F., et al. J. Muscle Res. Cell. Motil. 23(3):255-264(2002).

Other Notes	Small volumes of anti-SIX5 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 SIX5 purchase	MBS6347885 is an antibody targeting SIX5. Also known as SIX5, ID (SIX5, DMAHP, Homeobox protein SIX5, DM locus-associated homeodomain protein, Sine oculis homeobox homolog 5) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SIX5. It may not necessarily be applicable to this product.

NCBI GI #	40354216
NCBI GeneID	147912
NCBI Accession #	NP_787071.2
UniProt Primary Accession #	Q8N196
UniProt Related Accession #	Q8N196
GenBank Nucleotide #	NM_175875.4
NCBI Official Full Name	homeobox protein SIX5
NCBI Official Synonym Full Names	SIX homeobox 5
NCBI Official Symbol	SIX5
NCBI Official Synonym Symbols	BOR2; DMAHP
UniProt Protein Name	Homeobox protein SIX5
UniProt Synonym Protein Names	DM locus-associated homeodomain protein; Sine oculis homeobox homolog 5
Protein Family	Homeobox protein
UniProt Gene Name	SIX5
UniProt Synonym Gene Names	DMAHP
UniProt Entry Name	SIX5_HUMAN
NCBI Protein Information	homeobox protein SIX5; sine oculis homeobox homolog 5; DM locus-associated homeodomain protein; dystrophia myotonica-associated homeodomain protein

UniProt Comments for SIX5	SIX5: Transcription factor that is thought to be involved in regulation of organogenesis. May be involved in determination and maintenance of retina formation. Binds a 5'-GGTGTCAG-3' motif present in the ARE regulatory element of ATP1A1. Binds a 5'- TCA[AG][AG]TTNC-3' motif present in the MEF3 element in the myogenin promoter, and in the IGFBP5 promoter. Thought to be regulated by association with Dach and Eya proteins, and seems to be coactivated by EYA1, EYA2 and EYA3. Defects in SIX5 are the cause of branchiootorenal syndrome type 2 (BOR2). BOR is an autosomal dominant disorder manifested by various combinations of preauricular pits, branchial fistulae or cysts, lacrimal duct stenosis, hearing loss, structural defects of the outer, middle, or inner ear, and renal dysplasia. Associated defects include asthenic habitus, long narrow facies, constricted palate, deep overbite, and myopia. Hearing loss may be due to mondini type cochlear defect and stapes fixation. Penetrance of BOR syndrome is high, although expressivity can be extremely variable. Belongs to the SIX/Sine oculis homeobox family. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 19q13.32 Cellular Component: nucleoplasm; Golgi apparatus; intracellular membrane-bound organelle; cytoplasm Molecular Function: protein binding; sequence-specific DNA binding Biological Process: lens development in camera-type eye; transcription, DNA-dependent; negative regulation of transcription, DNA-dependent; spermatid development Disease: Branchiootorenal Syndrome 2
Research Articles on SIX5	**1.** In East Asian populations, a SIX1 mutation has been reported in a Japanese family with branchio-oto (BO) syndrome,yet SIX5 mutations have never been reported.
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