

Recombinant Human SIX Homeobox 6, His-tagged

Cat. No. SIX6-7190H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SIX6 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques. MW: 30.1kDa.
Species	Human
Source	E.coli
ProteinLength	1-246aa
Description	SIX6, also as known as OPTX2 and SIX9, belongs to the SIX/Sine oculis homeobox family contains 1 homeobox DNA-binding domain. The SIX homeobox protein is crucial in embryonic development by providing necessary instructions for the formation of the forebrain and eye development. This protein expressed in the developing and adult retina, hypothalamic and the pituitary regions. Defects in SIX6 are the cause of microphthalmia isolated with cataract type 2. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 40% glycerol, 5mM DTT, 2mM EDTA.
Molecular Mass	30.1kDa (269aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMFQLPIL NFSPQQVAGV CETLEESGDV ERLGRFLWSL PVAPAACEAL NKNESVLRAR AIVAFHGGNY RELYHILENH

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KFTKESHAKL QALWLEAHYQ EAEKLRGRPL GPVDKYRVRK KFPLPRTIWD
 GEQKTHCFKE RTRNLLREWY LQDPYPNPSK KRELAQATGL TPTQVGNWFK
 NRRQRDRAAA AKNRLQQQVL SQGSGRALRA EGDGTPEVLG VATSPAASLS
 SKAATSAISI TSSDSECDI

Purity >90% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [SIX6 SIX homeobox 6 \[Homo sapiens \]](#)

Official Symbol SIX6

Synonyms SIX6; SIX homeobox 6; OPTX2, sine oculis homeobox (Drosophila) homolog 6 , sine oculis homeobox homolog 6 (Drosophila); homeobox protein SIX6; Six9; optic homeobox 2; homeodomain protein OPTX2; sine oculis homeobox homolog 6; OPTX2; MCOPCT2;

Gene ID [4990](#)

mRNA Refseq [NM_007374](#)

Protein Refseq [NP_031400](#)

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MIM	606326
UniProt ID	O95475
Chromosome Location	14q23.1
Function	sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity;

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