SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Msx2 antibody

SL10158R

Product Name:	Msx2
Chinese Name:	同源盒基因Msx2抗体
Alias:	Msx2/Hox8; CRS 2; CRS2; FPP; Homeo box msh like 2; Homeobox protein Hox-8; Homeobox protein MSX 2; Homeobox protein MSX-2; Homeobox protein MSX2; Hox 8; Hox8; MSH; Msh homeo box 2; Msh homeo box homolog; Msh homeo box homolog 2; Msh homeobox 2; Msh homeobox homolog 2; Msx 2; Msx2; MSX2_HUMAN; Parietal foramina 1; PFM 1; PFM; PFM1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=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:	29kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Msx2/Hox8:101-200/267
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:	This gene encodes a member of the muscle segment homeobox gene family. The encoded protein is a transcriptional repressor whose normal activity may establish a balance between survival and apoptosis of neural crest-derived cells required for proper

craniofacial morphogenesis. The encoded protein may also have a role in promoting cell growth under certain conditions and may be an important target for the RAS signaling pathways. Mutations in this gene are associated with parietal foramina 1 and craniosynostosis type 2. [provided by RefSeq, Jul 2008].

Function:
Acts as a transcriptional regulator in bone development. Represses the ALPL promoter activity and antogonizes the stimulatory effect of DLX5 on ALPL expression during osteoblast differentiation. Probable morphogenetic role. May play a role in limb-pattern formation. In osteoblasts, suppresses transcription driven by the osteocalcin FGF response element (OCFRE). Binds to the homeodomain-response element of the ALPL promoter.

Subunit:
Interacts with MINT. Interacts with XRCC6 (Ku70) and XRCC5 (Ku80).

Subcellular Location:
Nucleus.

DISEASE:
Defects in MSX2 are the cause of parietal foramina 1 (PFM1) [MIM:168500]; also known as foramina parietalia permagna (FPP). PFM1 is an autosomal dominant disease characterized by oval defects of the parietal bones caused by deficient ossification around the parietal notch, which is normally obliterated during the fifth fetal month.
Defects in MSX2 are the cause of parietal foramina with cleidocranial dysplasia (PFMCCD) [MIM:168550]; also known as cleidocranial dysplasia with parietal foramina. PFMCCD combines skull defects in the form of enlarged parietal foramina and deficient ossification of the clavicles.
Defects in MSX2 are the cause of craniosynostosis type 2 (CRS2) [MIM:604757]; also known as craniosynostosis Boston-type (CSB). CRS2 is an autosomal dominant disorder characterized by the premature fusion of calvarial sutures. The craniosynostosis phenotype is either fronto-orbital recession, or frontal bossing, or turribrachycephaly, or cloverleaf skull. Associated features include severe headache, high incidence of visual problems (myopia or hyperopia), and short first metatarsals. Intelligence is normal.

Similarity:
Belongs to the Msh homeobox family.
Contains 1 homeobox DNA-binding domain.

SWISS:
P35548

Gene ID:
4488

Database links:

	Entrez Gene: 4488 Human Omim: 123101 Human SwissProt: P35548 Human Unigene: 89404 Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.