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Product datasheet for MR203243

Meox1 (NM_010791) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Meox1 (NM_010791) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Meox1
Synonyms:	AI385561; D330041M02Rik; Mox-1; Mox1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR203243 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATCCAGTGGCCAACAGCTGTGTGAGGAACCCCCAGCCCCCAGCCCCTGTCTGGGGCTGCCTTCGAA
ACCCCCACTCAGAAGATAGCAGCGCCTCAGGGCTGTCCCATTATCCCCCAACCCCGTTTTCCTTCCACCA
AAAATCAGACTTCCCAGCGACAGCAGCATACCCCGACTTCTCTGCTTCCTGCCTGGCAGCCACCCCACAC
AGCCTGCCCCGGACTGAGCGAATCTTCAACGAGCAGCATCCTGCCTTCCCACAGACCCCTGACTGGCACT
TCCCTATCTCAGAAGCCGGGCAGAGGCTCAACCTAGGCCCAGCTGGGAGCGCCAGGGAGATGGGAGCCGG
CAGCCCCGGCCTGGTGGATGGCACAGCAGGATTGGGGGAGGATTGCATGGTACTTGGGACGATCGCCAAT
GAGACGGAGAAGAAATCATCCAGAAGGAAAAAAGAGAGGTCAGACAACCAGGAGAACGGAGGAGGGAAGC
CAGAAGGCAGCAGCAAAGCCCGGAAGGAGAGGACAGCCTTCACCAAGGAGCAGCTACGGGAGCTGGAGGC
AGAGTTTGCCCACCACAACTACCTGACCCGGCTCCGGAGATATGAGATTGCAGTCAACCTGGACCTTTCT
GAGCGGCAGGTCAAAGTCTGGTTCCAGAACCGGAGGATGAAGTGGAAACGTGTGAAGGGGGGTCAGCCTG
TGTCCCCACAGGAGCAGGACCGAGAGGATGGGGACTCTGCAGCTTCTCCAAGTTCAGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

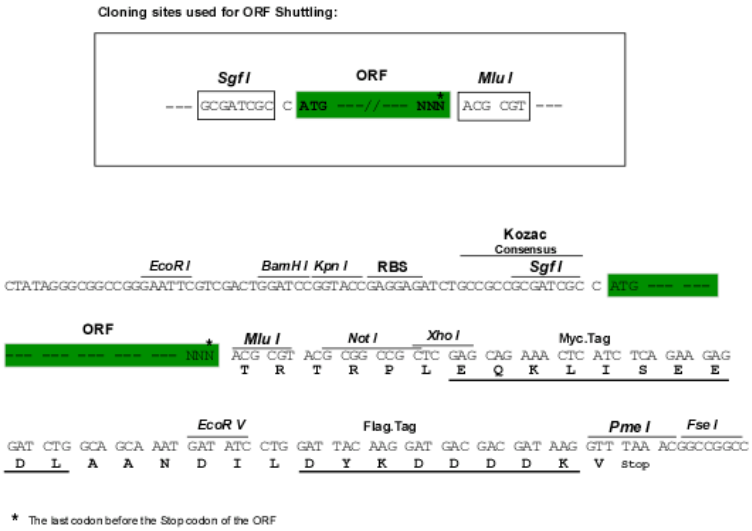
>MR203243 protein sequence
Red=Cloning site Green=Tags(s)

MDPVANSCVRNPQPPAPVWGCLRNPHSEDSSASGLSHYPPTPFSFHQKSDFPATAAYPDFSASCLAATPH
SLPRTERIFNEQHPAFPQTPDWHFPISEAGQRLNLGPAGSAREMGAGSPGLVDGTAGLGEDCMVLGTIAN
ETEKKSSRRKKERSDNQENGGGKPEGSSKARKERTAFTKEQLRELEAEFAHHNYLTRLRRYEIAVNLDLS
ERQVKVWFQNRRMKWKRVKGGQPVSPQEQDREDGDSAASPSSE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_010791

ORF Size: 762 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method: 1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_010791.3, NP_034921.1

RefSeq Size: 2235 bp

RefSeq ORF: 762 bp

Locus ID: 17285

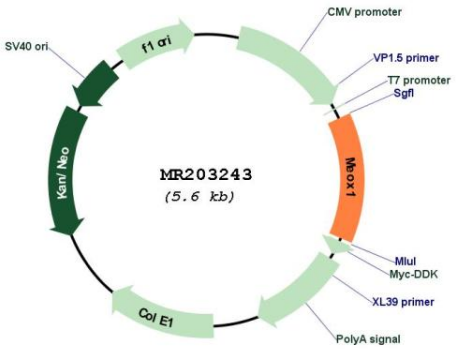
UniProt ID: P32442

Cytogenetics: 11 65.48 cM

MW: 28 kDa

Gene Summary: Mesodermal transcription factor that plays a key role in somitogenesis and is specifically required for sclerotome development. Required for maintenance of the sclerotome polarity and formation of the cranio-cervical joints (PubMed:19520072). Binds specifically to the promoter of target genes and regulates their expression. Activates expression of NKX3-2 in the sclerotome (PubMed:15024065). Activates expression of CDKN1A and CDKN2A in endothelial cells, acting as a regulator of vascular cell proliferation. While it activates CDKN1A in a DNA-dependent manner, it activates CDKN2A in a DNA-independent manner (PubMed:22206000). Required for hematopoietic stem cell (HSCs) induction via its role in somitogenesis: specification of HSCs occurs via the deployment of a specific endothelial precursor population, which arises within a sub-compartment of the somite named endotome (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203243