

## Product datasheet for **RR214310**

### **Msx1 (NM\_031059) Rat Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Msx1 (NM_031059) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Msx1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR214310 representing NM_031059 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACTTCTTTGCCACTCGGTGTCAAAGTGGAGGACTCCGCCTTCGCCAAGCCTGCTGGGGAGGCGCTG  
CCCAGGCCCGGGGCTGCTGCGGCCACTGCAACCGCCATGGGCACAGATGAGGAGGGCGCCAAGCCCAA  
AGTGCCCGCTTCACTCCTGCCCTTCAGCGTGGAGGCCCTCATGGCCGATCACAGGAAGCCGGGGCAAAG  
GAGAGCGTCTGGTGGCTTCCGAAGGGGCTCAGGCGCGGGTGGCTCGGTGCAGCACTTGGGCACCCGGC  
CCGGGTCTCTGGGCGCCCGGACGCGCCCTCCTCGCCGGGGCTCTCGGCCATTTCTCTGTTGGGGACT  
CCTCAAGCTGCCAGAAGATGCTCTGGTGAAGGCCGAGAGCCGGAGAAGCTAGATCGGACCCCGTGGATG  
CAGAGTCCCGCTTCTCCCGCCCCAGCCAGGCGGCTGAGTCCCGGCCTGCACCCTACGCAAGCACA  
AGACCAACCGCAAGCCCAGGACGCCCTTACCACGGCTCAGCTACTGGCTCTGGAGCGCAAGTTCGCCA  
GAAGCAGTACCTGTCTATTGCCGAGCGCGCGAGTTCTCCAGCTCGCTCAGCCTTACCGAGACCCAGGTG  
AAGATCTGGTCCAGAACCCTGTCTAAGGCCAAGAGACTGCAGGAGGCCGAGTTGGAGAAGTTGAAGA  
TGCCCGGAAGCCAATGTTGCCGCTGCTGCGTTCGGCCTCTCCTTTCTTGGGGTCTGCAGCGGT  
GGCTGCAGCTGCCGGCGCCTCACTCTACAGTGCCTCTGGCCCTTCCAGCGCGCCGCGCTGCCTGTAGCG  
CCCGTGGGACTCTACCCGCCACGTAGGCTACAGCATGTACCACCTGACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR214310 representing NM\_031059  
Red=Cloning site Green=Tags(s)

MTSLPLGVKVEDSAFAKPAGGGAAQAPGAAAATATAMGTDEEGAKPKVPASLLPFSVEALMADHRKPGAK  
 ESVLVASEGAQAAGGSVQHLGTRPGSLGAPDAPSSPGPLGHF SVGLLKL PEDALVKAESPEKLDRT PWM  
 QSPRFSPPPARRLSPPACTLRKHKTNRKPRTPTTAQLLALERKFRQKQYLSIAERAESSLSLTETQV  
 KIW FQNRRAKAKRLQEAELEKLMKAAKMLPPAAFGLSFPLGGPAAVAAAAGASLYSASGPFQRAALPVA  
 PVGLYTAHVGYSMYHLT

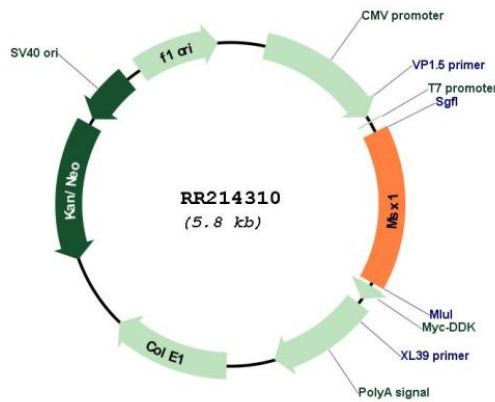
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_031059

<b>ORF Size:</b>	891 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_031059.1</a> , <a href="#">NP_112321.1</a>
<b>RefSeq Size:</b>	1806 bp
<b>RefSeq ORF:</b>	894 bp
<b>Locus ID:</b>	81710
<b>Cytogenetics:</b>	14q21
<b>MW:</b>	31 kDa
<b>Gene Summary:</b>	transcription factor; may mediate dental and craniofacial development; mutations in human are associated with tooth agenesis and cleft palate [RGD, Feb 2006]