

## Product datasheet for **MR227321**

### Runx2 (NM\_001146038) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Runx2 (NM_001146038) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Runx2
Synonyms:	AM; AML3; Cbf; Cbfa; Cbfa-1; Cbfa1; LS3; Os; Osf2; PEB; Pebp2a1; PEBP2aA; Pebpa2a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR227321 representing NM\_001146038  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGTCAAACAGCCTCTTCAGCGCAGTGACACCGTGTGACAAAGCTTCTTTGGGATCCGAGCACCA  
 GCCGGCGCTTCAGCCCCCTCCAGCAGCTGCAGCCCGCAAGATGAGCGACGTGAGCCGGTGGTGGC  
 TGCAGCAGCAGCAACAGCAGCAGCAGCAGCAACAGCAGCAGCAACAGCAACAGCAACAGCAACAGCAG  
 CAGCAGCAGCAGCAGCAGGAGGCGGCCGAGCAGCAGCGCGGCGAGCGGCGGCGCAGCAGCGGCGG  
 CGGCCGAGTGCCTGATTGAGGCGCCGACGACAACCGACCATGGTGGAGATCATCGCGGACCACCC  
 GGCCGAAGTGGTCCGACCGACAGTCCCAACTTCTGTGCTCCGTGCTGCCCTCGCACTGGCGGTGCAAC  
 AAGACCTGCCGTGGCCTTCAAGGTTGTAGCCCTCGGAGAGGTACCAGATGGGACTGTGGTTACCGTCA  
 TGGCCGGGAATGATGAGAACTACTCCGCCGAGCTCCGAAATGCCCTCGCTGTTATGAAAAACCAAGTAGC  
 CAGGTTCAACGATCTGAGATTTGTGGCCGGAGCGGACGAGGCAAGAGTTTACCTTGACCATAACAGTC  
 TTCACAAATCCTCCCAAGTGGCCACTTACCACAGAGCTATTAAGTACAGTGGACGGTCCCGGGGAAAC  
 CAAGAAGGCACAGACAGAAGCTTGATGACTCTAAACCTAGTTTGTCTCTGATCGCCTCAGTGATTTAGG  
 GCGCATTCCTCATCCCAGTATGAGAGTAGGTGTCCCGCTCAGAACCCACGGCCCTCCCTGAACTCTGCA  
 CCAAGTCTTTAATCCACAAGGACAGAGTCAGATTACAGATCCCAGGCAGGCACAGTCTTCCCCACCGT  
 GGTCTATGACAGTCTTACCCCTCCTATCTGAGCCAGATGACATCCCCATCCATCCACTCCACCACGCC  
 GCTGTCTTCCACACGGGGACCGGGCTACCTGCCATCACTGACGTGCCAGGCGTATTTAGATGATGAC  
 ACTGCCACCTCTGACTTCTGCCTCTGCCTTCTCTCAGTAAGAAGAGCCAGGCAGGTGCTTCCAGAAC  
 TGGGCCCTTTTTCAGACCCAGGCAGTTCCCAAGCATTTTCCCTCACTGAGAGCCGCTTCCCAACCC  
 ACGAATGCACTACCCAGCCACCTTACCTACACCCCGCCAGTCAGTCAGGCATGTCCCTCGGCATGTCC  
 GCCACCACTCACTACCACAGTACCTGCCACCACCTACCCCGGCTTCCCAAAGCCAGAGTGGACCCT  
 TCCAGACCAGCAGCACTCCATATCTCTACTATGGTACTTCGTGACATCCTATCAGTTCCCAATGGTACC  
 CGGGGAGACCGGTCTCCTTCCAGGATGGTCCCACCATGCACCACCCTCGAATGGCAGCAGCTATTA  
 AATCCAAATTTGCCTAACAGAATGATGGTGTGACGCTGACGGAAGCCACAGCAGTTCCCAACTGTTT  
 TGAAATCTAGCGGCAGAATGGATGAGTCTGTTGGCGGCCATAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR227321 representing NM\_001146038  
 Red=Cloning site Green=Tags(s)

MASNSLFSAVTPCQQSFFWDPSTSRRFSPSSSLQPGKMSDVSPVVAQQQQQQQQQQQQQQQQQQQQ  
 QQQQQQEAAAAAAAAAAAAAAAAAVPRLRPPHDNRTMVEIIADHPAELVRTDSPNFLCSVLPSHWRCN  
 KTLPVAFKVVVALGEVPDGTVVTVMAGNDENYSaelRNASAVMKNQVARFNDLRFVGRSGRGKSFTLTITV  
 FTNPPQVATYHRAIKVTVDGPREPRHRQKLDDSKPSLFSRLSDLGRIPHSMRVGVPVQNPRLNSA  
 PSPFNPQGSQITDPRQAQSSPPWSYDQSYPSYLSQMTSPSIHSTTPLSSTRGTGLPAITDVPVPRISDDD  
 TATSDFCLWPSSLSKKSQAGASELGPFS DPRQFPSSISL TESRF SNPRMHYPATFTYTPPVTSGMSLGMS  
 ATTHYHTYLPYPPYSGSSQSGPFQTSSTPYLYGTSSASYQFPMVPGGDRSPSRMVPPCTTTNNGSTLL  
 NPNLNPQNDGVDADGSHSSSPTVLNSSGRMDES VWRPY

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1921\\_a06.zip](https://cdn.origene.com/chromatograms/ja1921_a06.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001146038

**ORF Size:** 1584 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

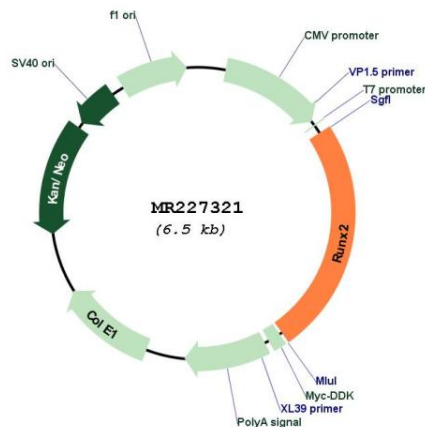
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001146038.2, NP_001139510.1</u>
<b>RefSeq Size:</b>	5898 bp
<b>RefSeq ORF:</b>	1587 bp
<b>Locus ID:</b>	12393
<b>UniProt ID:</b>	<u>Q08775</u>
<b>Cytogenetics:</b>	17 21.33 cM
<b>MW:</b>	57.9 kDa
<b>Gene Summary:</b>	This gene encodes a member of the runt domain-containing family of transcription factors. This protein is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene expression. The protein can bind DNA both as a monomer or, with more affinity, as a subunit of a heterodimeric complex. Transcript variants that encode different protein isoforms result from the use of alternate promoters as well as alternate splicing. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for MR227321