

Product datasheet for **RC212936**

RUNX2 (NM_001015051) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_001015051) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RUNX2
Synonyms:	AML3; CBF-alpha-1; CBFA1; CCD; CCD1; CLCD; OSF-2; OSF2; PEA2aA; PEBP2aA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC212936 representing NM_001015051
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCATCAAACAGCCTCTTCAGCACAGTGACACCATGTGACAAAACCTCTTTTGGGATCCGAGCACCA
 GCCGGCGCTTCAGCCCCCTCCAGCAGCTGCAGCCCGCAAAATGAGCGACGTGAGCCGGTGGTGGC
 TGCACAACAGCAGCAGCAACAGCAGCAGCAACAGCAGCAGCAGCAGCAACAGCAGCAGCAGCAG
 CAGGAGCGCGCGCGCGCTGCGGCGCGCGCGCTGCGGCGCGCGCAGCTGCAAGTCCCGGTTGC
 GGCCGCCACGACAACCGACCATGGTGGAGATCATCGCGACCCCGCCGAACCTCGCCGACCGA
 CAGCCCCAACCTCTGTGCTCGGTGCTGCCCTCGCACTGGCGCTGCAACAAGACCCTGCCGTGGCTTC
 AAGGTGGTAGCCCTCGGAGAGGTACCAGATGGGACTGTGGTACTGTGATGGCGGTAACGATGAAATT
 ATCTGCTGAGCTCCGAATGCCTCTGCTGTTATGAAAAACCAAGTAGCAAGTTCAACGATCTGAGATT
 TGTGGGCGGAGTGGACGAGGCAAGAGTTTACCTTGACCATAACCGTCTTCACAAATCCTCCCAAGTA
 GCTACCTATCACAGAGCAATTAAGTTACAGTAGATGGACCTCGGAACCCAGAAGGCACAGACAGAAGC
 TTGATGACTCTAAACCTAGTTTGTCTCTGACCGCTCAGTGATTTAGGGCGCATTCTCTATCCCAAGT
 GAGAGTAGGTGTCCCGCTCAGAACCCAGCGCCCTCCCTGAACCTGACCAAGTCTTTAATCCACAA
 GGACAGAGTCAGATTACAGACCCAGGCAGGCACAGTCTTCCCGCGCTGGTCTATGACCAGTCTTACC
 CCTCTACCTGAGCCAGATGACGTCCCGTCCATCCACTCTACCACCCGCTGTCTTCCACACGGGGCAC
 TGGGCTTCTGCCATCACCGATGCGCTAGGCGCATTTCAAGTGTTCAGAACTGGGCCCTTTTTCAGAC
 CCCAGGCAGTCCCAAGCATTTTCCCTCAGTGAAGCCGCTTCTCCAACCCAGCAATGCATATCCAG
 CCACCTTTACTTACACCCCGCAGTCACTCAGGCATGTCCTCGGTATGTCGCCACCTCACTACCA
 CACTACCTGCCACCCTACCCCGCTTCCCAAAGCCAGAGTGGACCCTTCCAGACCAGCAGCACT
 CCATATCTCTACTATGGCACTTCGTGAGGATCCTATCAGTTTCCCATGGTGCCGGGGGAGACCGGTCTC
 CTTCCAGAATGCTTCCGCCATGCACCACCCTCGAATGGCAGCAGCTATTAATCCAAATTTGCTAA
 CCAGAATGATGGTGTGACGCTGATGGAAGCCACAGCAGTTCCCAACTGTTTTGAATTCTAGTGGCAGA
 ATGGATGAATCTGTTTGGCGACCATAT

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212936 representing NM_001015051
 Red=Cloning site Green=Tags(s)

MASNSLFSVTPCQNFVDPSTSRRFSPSSSLQPGKMSDVSPVVAQQQQQQQQQQQQQQQQQQQQ
 QEAAAAAAAAAAAAAAAAAVPRLRPPHDNRTMVEIIADHPAELVRTDSPNFLCSVLP SHWRCNKTLPVAF
 KVVALGEVPDGTVVTVMAGNDENYSAELRNASAVMKNQVARFNDLRFVGRSGRGKSFLLITVFTNPPQV
 ATYHRAIKVTVDPREPRRHRQKLDLSDKPSLFSRDLSDLGRIPHPSMRVGVPPQNPRPSLNSAPSPFNQ
 GQSQITDPRQAQSSPPWSYDQSYPSYLSQMTSPSIHSTPLSSTRGTGLPAITDVPRRISGASELGPFS
 PRQFPSISLTSRFSNPRMHYPATFTYTPPVTSGMSLGMSTHYHTYLPYPPYSGSSQSQSGPFQTSST
 PYLYYGTSSGSYQFPMVPGDRSPSRMLPPCTTTSNGSTLLNPNLPNQNDGVDADGSHSSSPTVLNSSGR
 MDESVMWRPY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001015051

ORF Size: 1497 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 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).

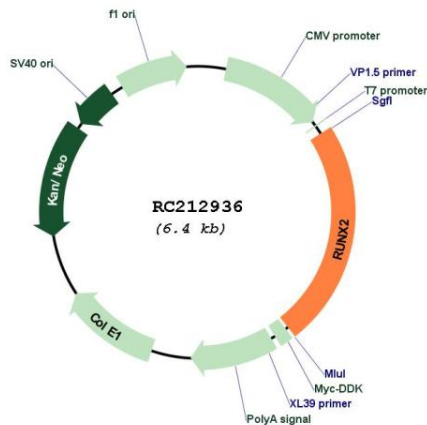
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

RefSeq: [NM_001015051.3](#)

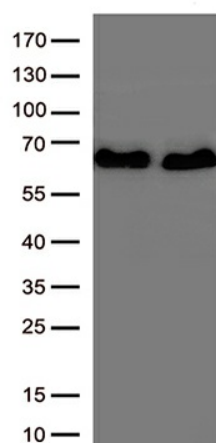
RefSeq Size: 5506 bp
RefSeq ORF: 1500 bp
Locus ID: 860
UniProt ID: [Q13950](#)
Cytogenetics: 6p21.1
Protein Families: Druggable Genome, Transcription Factors
MW: 54.1 kDa

Gene Summary: This gene is a member of the RUNX family of transcription factors and encodes a nuclear protein with an Runt DNA-binding domain. 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. Two regions of potential trinucleotide repeat expansions are present in the N-terminal region of the encoded protein, and these and other mutations in this gene have been associated with the bone development disorder cleidocranial dysplasia (CCD). Transcript variants that encode different protein isoforms result from the use of alternate promoters as well as alternate splicing. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC212936



HEK293T cells were transfected with the RUNX2 transcript variant 1 (Cat# [RC212884], Left lane) or RUNX2 transcript variant 2 (Cat# RC212936, Right lane) cDNA clone for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RUNX2 antibody(Cat# [TA813668]).