

Product datasheet for **SC123971**

RUNX2 (NM_004348) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_004348) Human Untagged Clone
Tag:	Tag Free
Symbol:	RUNX2
Synonyms:	AML3; CBFA1; CCD; CCD1; OSF-2; OSF2; PEA2aA; PEBP2A1; PEBP2A2; PEBP2aA; PEBP2aA1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC123971 sequence for NM_004348 edited (data generated by NextGen Sequencing)

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ATGCGTATTCCTCGTAGATCCGAGCACCAGCCGGCGCTTCAGCCCCCTCCAGCAGCCTG
CAGCCCGGCAAAATGAGCGACGTGAGCCCGGTGGTGGCTGCGCAACAGCAGCAGCAACAG
CAGCAGCAGCAACAGCAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAGGAGGCGGGC
GCGGCGGCTGCGGCGGCGGCGGCTGCGGCGGCGGCGAGCTGCAGTGCCCGGTTGCGG
CCGCCACGACAACCGCACCATGGTGGAGATCATCGCCGACCACCCGGCCGAACCTCGTC
CGCACCGACAGCCCAACTTCTGTGCTCGGTGCTGCCCTCGCACTGGCGCTGCAACAAG
ACCCTGCCCGTGGCTTCAAGGTGGTAGCCCTCGGAGAGGTACCAGATGGGACTGTGTT
ACTGTCATGGCGGTAACGATGAAAATTATTCTGCTGAGCTCCGGAATGCCTCTGCTGTT
ATGAAAAACCAAGTAGCAAGGTTCAACGATCTGAGATTTGTGGCCGGAGTGGACGAGGC
AAGAGTTTACCTTGACCATAACCGTCTTCACAAATCCTCCCAAGTAGCTACCTATCAC
AGAGCAATTAAGTTACAGTAGATGGACCTCGGGAACCCAGAAGGCACAGACAGAAGCTT
GATGACTCTAAACCTAGTTTGTCTCTGACCGCCTCAGTGATTTAGGGCGCATTCTCAT
CCCAGTATGAGAGTAGGTGTCGCCCTCAGAACCACGGCCCTCCCTGAACTCTGCACCA
AGTCTTTTAATCCACAAGGACAGAGTCAGATTACAGACCCAGGCAGGCACAGTCTTCC
CCGCCGTGGTCTATGACCAGTCTTACCCTCCTACCTGAGCCAGATGAGTCCCGTCC
ATCCACTCTACCACCCGCTGTCTTCCACACGGGGCACTGGGCTTCTGCCATCACCGAT
GTGCTTAGGCGCATTTAGATGATGACTGACACTGCCACCTCTGACTTCTGCCTCTGGCCTTCC
ACTCTCAGTAAGAAGAGCCAGGCAGGTGCTTCAAGACTGGGCCCTTTTTCAGACCCAGG
CAGTTCCCAAGCATTTTACCTCACTGAGAGCCGCTTCTCAACCCACGAATGCACTAT
CCAGCCACCTTTACTTACACCCCGCCAGTCACCTCAGGCATGTCCCTCGGTATGTCGGC
ACCACTACTACCACACTACTGCCACCACCTACCCCGGCTCTTCCAAAGCCAGGT
GGACCCTTCCAGACCAGCAGCACTCCATATCTCTACTATGGCACTTCGTACAGGATCCTAT
CAGTTTCCATGGTGCCGGGGGAGACCGGTCTCCTTCCAGAATGCTTCCGCCATGCACC
ACCACCTCGAATGGCAGCAGCTATTAATCCAAATTTGCCTAACAGAATGATGGTGT
GACGCTGATGGAAGCCACAGCAGTTCCCAACTGTTTTGAATTCTAGTGGCAGAATGGAT
GAATCTGTTTGGCGACCATATTGA
    
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Clone variation with respect to NM_004348.3

5' Read Nucleotide Sequence: >OriGene 5' read for NM_004348 unedited

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ACTGCAGTGCCTTNCGAGAGNATATGGCGAACCGCAACTGGGGGCCAGGTCTCGCCTTC
ACCCCCCAATTTCTCCTTGCCCTTTATTTCCACCCTCTCCCCCTCCCCCGGCGGGTT
CGCTAACTTGTGGCTGTGGGTGATGCGTATTCCTGATAGATCCGAGCACCAGCCGGCGCTT
CAGCCCCCTCCAGCAGCCTGCAGCCCGGCAAAATGAGCGACGTGAGCCCGGTGGTGGC
TGCGCAACAGCAGCAGCAACAGCAGCAGCAACAGCAGCAGCAGCAGCAGCAACAGCA
GCAGCAGCAGCAGGAGGCGGCGGCGGCTGCGGCGGCGGCGGCTGCGGCGGCGGCGG
AGCTGCAGTGCCCGGTTGCGGGCCGCCACGACAACCGCACCATGGTGGAGATCATCGC
CGACCACCCGGCCGAACCTCGTCCGACCCAGCAGCCCAACTTCTGTGCTCGGTGCTGCC
CTCGCACTGGCGCTGCAACAAGACCCTGCCCGTGGCTTCAAGGTGGTAGCCCTCGGAGA
GGTACCAGATGGGACTGTGGTACTGTCATGGCGGTAACGATGAAAATTATTCTGCTGA
GCTCCGGAATGCCTCTGCTGTTATGAAAAACCAAGTAGCAAGGTTCAACGATCTGAGATT
TGTGGCCGAGTGGACGAGGCAAGAGTTTACCTTGACCATAACCGTCTTCACAAATCCT
CCCCAGTAGCTACCTAT
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_004348 unedited GTATTCTTTGTACCCGCCTGACAGTTACCACAGTCCCATCTGGTAGCTCTCCGAGGGCTA CCACCTTGAAGGCCACGGGCAGGGTTTTGTTGCAGCGCCAGTGCAGGGCAGCACCGGAGC ACAGGAAGTTGGGGCTGTCGGTGCAGGACGAGTTCGGCCGGGTGGTCGGCGATGATCTCCA CCATGGTGCGGTTGTCGTTGGGGCGGCCAACCAGGGGCACTGCAGTCCCGCCGCCGAG CCGCCGCCGCCGAGCCGCCGCCGCCGCTCTGCTGCTGCTGCTGCTGTTGCTGCTGCT GCTGCTGCTGCTGTTGCTGCTGCTGCTGTTGCGCAGCCACCACCGGGC TCACGTCGCTCATTTTGCCTGGGCTGCAGGCTGCTGGAGGGGGGCTGAAGCGCCGGCTGG TGCTCGGATCTACGGGAATACGCATCACAAACAGCCACAAGTTAGCGAAGTGGCCGGGGGA GGGGGAGGAGGGTGGAAATGAGGGGCAAGGAGGAAATTGGGGGGTGAANGCNANNACNN GNTGCNGAANGNNGANNNGCCNAGAGTGAATCGAGATTACAAGAATTTTGGACAGGAT TTAATAATGCGACGCTTCGCTTATAGAACAAGTAGCCTACAACACCATGTCTCGACTGG CATATCGGTGACCATTTTACGTCCTCTACCGCGGCCCTGGTGTATTAATCTGAACGA GACTGTGTATGGGAGAGAGGACGACCTCGCCTTGACGTTGTGGAAGACGCGCCGAGAT GCCAATATGAGGTCAGTGTGGAATCGTCGAGTAATTGGGACGATTGCAGACAGCT
Restriction Sites:	NotI-NotI
ACCN:	NM_004348
Insert Size:	5000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_004348.3 , NP_004339.3
RefSeq Size:	5720 bp
RefSeq ORF:	1524 bp
Locus ID:	860
Cytogenetics:	6p21.1
Domains:	Runt
Protein Families:	Druggable Genome, Transcription Factors

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]

Transcript Variant: This variant (3) is transcribed from an alternate promoter (P2) and contains a different segment for the 5' UTR and 5' coding region than variant 1. It encodes a protein (isoform c) with a shorter and distinct N-terminus when it is compared to isoform a.