

## Product datasheet for **SC302270**

### **RUNX2 (NM\_001024630) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_001024630) Human Untagged Clone
Tag:	Tag Free
Symbol:	RUNX2
Synonyms:	AML3; CBF-alpha-1; CBFA1; CCD; CCD1; CLCD; OSF-2; OSF2; PEA2aA; PEBP2aA
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001024630 edited  
 ATGCTTCATTGCGCTCACAAACAACCACAGAACCACAAGTGCGGTGCAAACCTTTCTCCAG  
 GAGGACAGCAAGAAGTCTCTGGTTTTTAAATGGTTAATCTCCGCAGGTCCTACCAGCCA  
 CCGAGACCAACAGAGTCAATTAAGGCTGCAAGCAGTATTTACAACAGAGGGTACAAGTTC  
 TATCTGAAAAAAAAGGAGGGACTATGGCATCAAACAGCCTCTTCAGCACAGTGACACCA  
 TGTCAGCAAAAACCTCTTTTGGGATCCGAGCACCAGCCGGCGCTTCAGCCCCCTCCAGC  
 AGCCTGCAGCCCCGCAAAATGAGCGACGTGAGCCGGTGGTGGCTGCGCAACAGCAGCAG  
 CAACAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAGGAG  
 GCGGCGGCGGCGCTGCGGCGGCGGCGGCTGCGGCGGCGGCGCTGCGGCGGCGGCGCTG  
 TTGCGGCCGCCCCACGACAACCGCACCATGGTGGAGATCATCGCCGACCACCCGGCCGAA  
 CTCGTCCGACCAGCAGCCCAACTTCTGTGCTCGGTGCTGCCCTCGACTGGCGCTGC  
 AACAGACCTGCCCGTGGCCTTCAAGGTGGTAGCCCTCGGAGAGGTACCAGATGGGACT  
 GTGGTTACTGTATGGCGGTAACGATGAAAATTATTCTGCTGAGCTCCGGAATGCCTCT  
 GCTGTTATGAAAAACCAAGTAGCAAGTTCAACGATCTGAGATTTGTGGCCGGAGTGGA  
 CGAGGCAAGAGTTTACCTTGACCATAACCGTCTTCACAAATCCTCCCCAAGTAGCTACC  
 TATCACAGAGCAATTAAGTTACAGTAGATGGACCTCGGGAACCCAGAAGGCACAGACAG  
 AAGCTTGATGACTCTAAACCTAGTTTGTCTCTGACCGCCTCAGTGATTTAGGGCGCATT  
 CCTCATCCAGTATGAGAGTAGGTGTCCCGCTCAGAACCACGGCCCTCCCTGAACTCT  
 GCACCAAGTCTTTTAAATCCACAAGGACAGAGTCAGATTACAGACCCAGGCAGGCACAG  
 TCTTCCCCGCGGTGGTCTATGACCAGTCTTACCCCTCTACCTGAGCCAGATGACGTCC  
 CCGTCCATCCACTCTACCACCCGCTGTCTTCCACACGGGGCACTGGGCTTCTGCCATC  
 ACCGATGTGCCTAGGCGCATTTTCCAGATGATGACTGACACTGCCACCTGACTTCTGCCTTG  
 CCTTCCACTCTCAGTAAGAAGAGCCAGGCAGGTGCTTCCAGAACTGGGCCCTTTTTCAGAG  
 CCCAGGCAGTTCCCAAGCATTTTATCCCTCACTGAGAGCCGCTTCTCCAACCCACGAATG  
 CACTATCCAGCCACCTTTACTTACACCCGCGCAGTCACCTCAGGCATGTCCCTCGGTATG  
 TCCGCCACCACTCACTACCACACCTACCTGCCACCACCTACCCCGGCTTCTCCAAAGC  
 CAGAGTGGACCTTCCAGACCAGCAGCACTCCATATCTCTACTATGGCACTTCGTCAGGA  
 TCCTATCAGTTTCCATGGTGCCGGGGGAGACCGGTCTCCTTCCAGAATGCTTCCGCCA  
 TGCACCACCACCTCGAATGGCAGCAGCTATTAATCAAATTTGCTAACCAAGATGAT  
 GGTGTTGACGCTGATGGAAGCCACAGCAGTTCCCAACTGTTTTGAATTCTAGTGGCAGA  
 ATGGATGAATCTGTTTGGCGACCATATTGA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001024630  
**Insert Size:** 3000 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](#)

<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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>	<u><a href="#">NM_001024630.1</a></u> , <u><a href="#">NP_001019801.1</a></u>
<b>RefSeq Size:</b>	5564 bp
<b>RefSeq ORF:</b>	5553 bp
<b>Locus ID:</b>	860
<b>UniProt ID:</b>	<u><a href="#">Q13950</a></u>
<b>Cytogenetics:</b>	6p21.1
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a, also known as OSF2/CBFA1a). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments. There are no full-length transcripts supporting this RefSeq in human; however, it is represented based on PMID: 9434946, and full-length transcript support from the mouse homolog (GeneID: 12393, AF010284.1).</p>