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Product datasheet for SC317971

RUNX2 (NM_001015051) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_001015051) 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:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene ORF sequence for NM_001015051 edited
ATGGCATCAAACAGCCTCTTCAGCACAGTGACACCATGTCAGCAAAACTTCTTTTGGGAT
CCGAGCACCAGCCGGCGCTTCAGCCCCCCCTCCAGCAGCCTGCAGCCCGGCAAAATGAGC
GACGTGAGCCCGGTGGTGGCTGCGCAACAGCAGCAGCAACAGCAGCAGCAGCAACAGCAG
CAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAGGAGGCGGCGGCGGCGGCTGCGGCGGCG
GCGGCGGCTGCGGCGGCGGCAGCTGCAGTGCCCCGGTTGCGGCCGCCCCACGACAACCGC
ACCATGGTGGAGATCATCGCCGACCACCCGGCCGAACTCGTCCGCACCGACAGCCCCAAC
TTCCTGTGCTCGGTGCTGCCCTCGCACTGGCGCTGCAACAAGACCCTGCCCGTGGCCTTC
AAGGTGGTAGCCCTCGGAGAGGTACCAGATGGGACTGTGGTTACTGTCATGGCGGGTAAC
GATGAAAATTATTCTGCTGAGCTCCGGAATGCCTCTGCTGTTATGAAAAACCAAGTAGCA
AGGTTCAACGATCTGAGATTTGTGGGCCGGAGTGGACGAGGCAAGAGTTTCACCTTGACC
ATAACCGTCTTCACAAATCCTCCCCAAGTAGCTACCTATCACAGAGCAATTAAAGTTACA
GTAGATGGACCTCGGGAACCCAGAAGGCACAGACAGAAGCTTGATGACTCTAAACCTAGT
TTGTTCTCTGACCGCCTCAGTGATTTAGGGCGCATTCCTCATCCCAGTATGAGAGTAGGT
GTCCCGCCTCAGAACCCACGGCCCTCCCTGAACTCTGCACCAAGTCCTTTTAATCCACAA
GGACAGAGTCAGATTACAGACCCCAGGCAGGCACAGTCTTCCCCGCCGTGGTCCTATGAC
CAGTCTTACCCCTCCTACCTGAGCCAGATGACGTCCCCGTCCATCCACTCTACCACCCCG
CTGTCTTCCACACGGGGCACTGGGCTTCCTGCCATCACCGATGTGCCTAGGCGCATTTCA
GGTGCTTCAGAACTGGGCCCTTTTTCAGACCCCAGGCAGTTCCCAAGCATTTCATCCCTC
ACTGAGAGCCGCTTCTCCAACCCACGAATGCACTATCCAGCCACCTTTACTTACACCCCG
CCAGTCACCTCAGGCATGTCCCTCGGTATGTCCGCCACCACTCACTACCACACCTACCTG
CCACCACCCTACCCCGGCTCTTCCCAAAGCCAGAGTGGACCCTTCCAGACCAGCAGCACT
CCATATCTCTACTATGGCACTTCGTCAGGATCCTATCAGTTTCCCATGGTGCCGGGGGGA
GACCGGTCTCCTTCCAGAATGCTTCCGCCATGCACCACCACCTCGAATGGCAGCACGCTA
TTAAATCCAAATTTGCCTAACCAGAATGATGGTGTTGACGCTGATGGAAGCCACAGCAGT
TCCCCAACTGTTTTGAATTCTAGTGGCAGAATGGATGAATCTGTTTGGCGACCATATTGA
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Restriction Sites:	Please inquire
ACCN:	NM_001015051
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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001015051.2, NP_001015051.2
RefSeq Size:	5506 bp
RefSeq ORF:	1704 bp
Locus ID:	860
UniProt ID:	Q13950
Cytogenetics:	6p21.1
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 (2) lacks an in-frame exon in the 3' coding region, compared to variant 1. The encoded isoform (b, also known as OSF2/CBF1b) is shorter, compared to isoform a. 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 partial transcript alignments.