

Product datasheet for **RG212884**

RUNX2 (NM_001024630) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_001024630) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RUNX2
Synonyms:	AML3; CBF-alpha-1; CBFA1; CCD; CCD1; CLCD; OSF-2; OSF2; PEA2aA; PEBP2aA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG212884 representing NM_001024630
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTTCATTGCGCTCACAACAACCACAGAACCACAAGTGCAGTGCAGAACTTTCTCCAGGAGGACAGCA
 AGAAGTCTCTGGTTTTAAATGGTTAATCTCCGACAGTCACTACCAGCCACCGAGACCAACAGAGTCATT
 TAAGGCTGCAAGCAGTATTTACAACAGAGGGTACAAGTCTATCTGAAAAAAAAGGAGGACTATGGCA
 TCAAACAGCCTCTTCAGCACAGTGACACCATGTGACAAAACTCTTTGGGATCCGAGCACCAGCCGGC
 GCTTCAGCCCCCTCCAGCAGCCTGCAGCCCGCAAAATGAGCGACGTGAGCCCGTGGTGGTGC
 ACAGCAGCAGCAACAGCAGCAGCAACAGCAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAGGAG
 GCGGGCGGGCGGCTGCGGGCGGGCGGGCTGCGGGCGGGCAGCTGCAGTCCCCGGTTGCGGGCGC
 CCCACGACAACCGCACCATGGTGGAGATCATCGCCGACCACCCGGCCGAACCTGTCGACCCGACAGCCC
 CAACTTCTGTGCTCGGTGCTGCCCTCGCACTGGCGCTGCAACAAGACCTGCCCGTGGCCTTCAAGGTG
 GTAGCCCTCGGAGAGTACCAGATGGGACTGTGGTTACTGTATGGCGGGTAACGATGAAAATTATCTG
 CTGAGCTCCGGAATGCCTCTGCTGTTATGAAAAACCAAGTAGCAAGTTCAACGATCTGAGATTTGTGGG
 CCGGAGTGGACGAGGCAAGATTTACCTTGACCATAACCGTCTTCAAAATCCTCCCAAGTAGCTACC
 TATCACAGAGCAATTAAGTTACAGTAGATGGACCTCGGGAACCCAGAAGGCACAGACAGAAGCTTGATG
 ACTCTAAACCTAGTTTGTCTCTGACCGCTCAGTGATTTAGGGCGCATTCTCATCCAGTATGAGAGT
 AGGTGTCCCGCTCAGAACCCACGGCCCTCCCTGAACTCTGCACCAAGTCCTTTTAAATCCACAAGGACAG
 AGTCAGATTACAGACCCAGGCAGGCACAGTCTCCCCGCGTGGTCTATGACCAGTCTTACCCCTCT
 ACCTGAGCCAGATGACGTCCCCGTCCATCCACTTACCACCCGCTGTCTTCCACACGGGGCAGTGGCT
 TCTTGCCATCACCGATGTGCTTAGGCGCATTTACAGATGATGACACTGCCACCTCTGACTTCTGCCTCTGG
 CCTTCCACTCTCAGTAAGAAGAGCCAGGCAGGTGCTTCAAGACTGGGCCCTTTTTCAGACCCAGGCAGT
 TCCAAGCATTTTATCCCTCACTGAGAGCCGCTTCTCCAACCCACGAATGCACTATCCAGCCACCTTTAC
 TTACACCCCGCCAGTCACCTCAGGCATGTCCCTCGGTATGTCGCCACCACTCACTACCACACCTACCTG
 CCACCACCTACCCGGCTTCTCCAAGCCAGAGTGGACCTTCCAGACCAGCAGCACTCCATATCTCT
 ACTATGGCACTTCGTGAGGATCTATCAGTTTCCATGGTCCGGGGGAGACCGGTCTCCTTCCAGAA
 TCTTCCGCAATGCACCACCACTCGAATGGCAGCAGCTATTAATCAAATTTGCCTAACAGAATGAT
 GGTGTTGACGCTGATGGAAGCCACAGCAGTTCCCAACTGTTTTGAATTCTAGTGCAGAAATGGATGAAT
 CTGTTTGGCGACCATAT

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG212884 representing NM_001024630
 Red=Cloning site Green=Tags(s)

MLHSPHKQPQNHKCGANFLQEDSKKSLVFKWLISAGHYQPPRPTEFKAASSIYNRGYKFYLLKKGGTMA
 SNSLFSTVTPCQQNFFWDPSTSRFPSPSSSLQPGKMSDVSPVVAQQQQQQQQQQQQQQQQQQQQE
 AAAAAAAAAAAAAAAAAAVPRLRPPHDNRTMVEIIADHPAELVRTDSPNFLCSVLP SHWRCNKTLPVAFKV
 VALGEVPDGTVVVMAGNDENYSAELRNASAVMKNQVARFNDLRFVGRSGRGKSFLLTITVFTNPPQVAT
 YHRAIKVTVDGPREPRRHQKLDLSDKPSLFSDRLSDLGRIPHSMRVGVPPQNPRLNSAPSPFNPOGQ
 SQITDPRQAQSSPPWSYDQSYPSYLSQMTSPSIHSTTPLSSTRGTGLPAITDVPRISSDDTATSDFCLW
 PSTLSKKSQAGASELGPFSQPRQFSPISLSTESRF SNPRMHYPATFTYTPPVTSMSLGMSTTHYHTYL
 PPPYPGSSQSQSGPFQTSSTPYLYYGTSSGSYQFPMVPGDRSPSRMLPPCTTTSNGSTLLNPNLPNQND
 GVDADGSHSSSPTVLNSSGRMDESVMWRPY

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001024630

ORF Size: 1767 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_001024630.2](#), [NP_001019801.2](#)

RefSeq Size: 5572 bp

RefSeq ORF: 1566 bp

Locus ID: 860

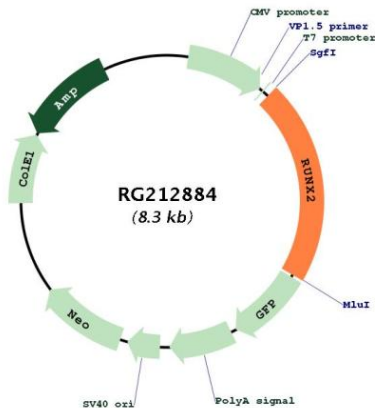
UniProt ID: [Q13950](#)

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]

Product images:



Circular map for RG212884