

Product datasheet for **RG213097**

RUNX2 (NM_004348) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX2 (NM_004348) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RUNX2
Synonyms:	AML3; CBFA1; CCD; CCD1; OSF-2; OSF2; PEA2aA; PEBP2A1; PEBP2A2; PEBP2aA; PEBP2aA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213097 representing NM_004348
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGTATTCCTAGATCCGAGCACCAGCCGGCCTTACGCCCCCTCCAGCAGCCTGCAGCCGGCA
 AAATGAGCGACGTGAGCCGGTGGTGGCTGCGCAACAGCAGCAGCAACAGCAGCAGCAACAGCAGCA
 GCAGCAGCAACAGCAGCAGCAGCAGCAGGAGGCGGGCGGGCTGCGGCGGGCGGGCTGCG
 GCGGCGGAGCTGCAGTGCCCGGTTGCGGCGGCCACGACAACCGCACCATGGTGGAGATCATCGCCG
 ACCACCCGGCGAACTCGTCCGACCGACGCCCAACTTCTGTGCTCGGTGCTGCCCTCGACTGGCG
 CTGCAACAAGACCCTGCCGTGGCCTTCAAGTGGTAGCCCTCGGAGAGGTACCAGATGGGACTGTGGT
 ACTGTCATGGCGGTAACGATGAAAATTATTCTGCTGAGCTCCGGAATGCCTCTGCTGTTATGAAAAAC
 AAGTAGCAAGGTTCAACGATCTGAGATTTGTGGCCGGAGTGGACGAGGCAAGAGTTTACCTTGACCAT
 AACCGTCTTCAAAATCCTCCCAAGTAGCTACCTATCACAGAGCAATTAAGTTACAGTAGATGGACCT
 CCGGAACCCAGAAGGCACAGACAGAAGCTTGATGACTCTAAACCTAGTTTGTCTGACCGCCTCAGTG
 ATTTAGGGCGCATTCTCATCCAGTATGAGAGTAGGTGTCCCGCCTCAGAACCCACGGCCCTCCCTGAA
 CTCTGCACCAAGTCTTTAATCCACAAGGACAGAGTCAGATTACAGACCCAGGCAGGCACAGTCTTCC
 CCGCCGTGGTCTATGACCAGTCTTACCCTCCTACCTGAGCCAGATGACGTCCCGTCCATCCACTCTA
 CCACCCGCTGTCTTCCACACGGGGCACTGGGCTTCTGCCATCACCGATGTGCCTAGGGCATTTCAGA
 TGATGACACTGCCACCTGACTTCTGCCTTGGCCTTCCACTCTCAGTAAGAAGAGCCAGGCAGGTGCT
 TCAGAAGTGGCCCTTTTTCAGACCCAGGCAGTCCCAAGCATTTCATCCCTCACTGAGAGCCGCTTCT
 CCAACCCAGCAATGCACTATCCAGCCACTTTACTTACACCCCGCCAGTCACCTCAGGCATGTCCCTCG
 TATGTCCGCCACCACCTCACTACCACACCTACCTGCCACCACCCTACCCCGGCTTCCCAAGCCAGAGT
 GGACCCTTCCAGACCAGCAGCACTCCATATCTCTACTATGGCACTTCGTCAGGATCCTATCAGTTTCCCA
 TGGTGCCGGGGGAGACCGGTCTCCTTCCAGAATGCTTCCGCCATGCACCACCACCTCGAATGGCAGCAC
 GCTATTAATCAAATTTGCCTAACAGAATGATGGTGTGACGCTGATGGAAGCCACAGCAGTTCCCA
 ACTGTTTTGAATTCTAGTGGCAGAATGGATGAATCTGTTTGGCGACCATAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG213097 representing NM_004348
 Red=Cloning site Green=Tags(s)

MRIPVDPSTSRFFSPPSSSLQPGKMSDVSPVVAQQQQQQQQQQQQQQQQQQQEEEEEEEEEEEE
 AAAAAVPRLRPPHDNRTMVEIIADHPAELVRTDSPNFLCSVLP SHWRCNKTLPVAFKVVVALGEVPDGTVV
 TVMAGNDENYSAELRNASAVMKNQVARFNDLRFVGRSGRGKSFTLTITVFNPPQVATYHRAIKVTVDGP
 REPRRHQKLDLSDSKPSLFSRLSDLGRIPHSMRVGVPPQNPRLNSAPSPFNQGSQITDPRQAQSS
 PPWSYDQSYPSYLSQMTSPSIHSTTPLSSTRGTGLPAITDVPRRISDDDTATSDFLWPSTLSKKSQAGA
 SELGPFSDPRQFPSISSLTESRF SNPRMHYPATFTYTPPVTSGMSLGMSATTHYHTYLP PYPYGSQSQS
 GPFQTSSTPYLYYGTSSGSYQFPMVPGDRSPSRMLPPCTTTNGSTLLNPNLPNQNDGVDADGSHSSP
 TVLNSSGRMDES VWRPY

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004348

ORF Size: 1521 bp

OTI Disclaimer: 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_004348.3](#), [NP_004339.3](#)

RefSeq Size: 5720 bp

RefSeq ORF: 1523 bp

Locus ID: 860

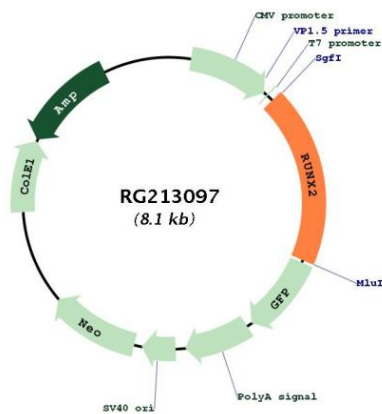
Cytogenetics: 6p21.1

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]

Product images:



Circular map for RG213097