

## Product datasheet for **RG200898**

### **RUNX1T1 (NM\_175636) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RUNX1T1 (NM_175636) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RUNX1T1
Synonyms:	AML1-MTG8; AML1T1; CBFA2T1; CDR; ETO; MTG8; ZMYND2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200898 representing NM\_175636  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAGACTCACCTGTGGATGTGAAGACGCAATCTAGGCTGACTCCTCCAACAATGCCACCTCCCCAA  
 CTA  
 CTACTCAAGGAGCTCCAAGAACCAGTTCATTTACACCGACAACGTTAACTAATGGCAGGACGATTCTCC  
 TACAGCCTTGAATGGCGCCCCCTCACCACCAATGGCTTCAGCAATGGGCTTCTCTTCTCTCTCTCC  
 TCTCTGGCTAATCAACAGCTGCCCCAGCCTGTGGTGCCAGGCAACTCAGCAAGCTGAAAAGTTCTTA  
 CTACCCTGCAGCAGTTTGGCAATGACATTTACCCGAGATAGGAGAAAGAGTTCGCACCCTGTTCTGGG  
 ACTAGTGAATCCACTTTGACAATTGAAGAATTCATTCCAACTGCAAGAAGCTACTAACTTCCCCTG  
 AGACCTTTTGTATCCCATTTTTGAAGGCCAATTGCCCTGCTGCAGCGTGAGCTCCTCCACTGCGCAA  
 GACTGGCCAAACAGAACCCTGCCAGTACCTCGCCAGCATGAACAGCTGCTTCTGGATGCCAGCACCAC  
 CTCACCTGTTGACTCCTCAGAGTGTCTCGATGTGAACGAAAACGGGAAGAGGCGAATCCAGACAGA  
 ACCAAAGAAAATGGCTTTGACAGAGAGCCTTTGCACTCAGAACATCCAAGCAAGCGACCATGCACTATTA  
 GCCCAGGCCAGCGGTACAGTCCAATAACGGCTTATCCTACCAGCCCAATGGCCTGCCTCACCTACCCC  
 ACCTCCACCTCAGCATTACCGTTTGGATGATATGGCCATTGCCACCCTACAGGGACTCCTATCGACAC  
 CCCAGCCACAGGGACCTCAGGGACAGAAACAGACCTATGGGGTTGCATGGCACACGTCAAGAAGAAATGA  
 TTGATCACAGACTAACAGACAGAGAATGGGCAGAAAGAGTGGAAACATCTTGACCATCTGTAAACTGCAT  
 AATGGACATGGTAGAAAAACAAGGCGATCTCTCACCGTACTAAGGCGGTGTCAAGAAGCAGACCCGGAA  
 GAATTGAATTACTGGATCCGGCGGTACAGTGACGCCGAGGACTTAAAAAAGGTGGCGGAGTACAGCA  
 GCCACTTAGGCAGCAGAGTCCCCTCAACCCAGACCCAGTTGCACTAGACGCGCATCGGGAATTCCTTCA  
 CAGGCCTGCGTCTGGATACGTGCCAGAGGAGATCTGGAAGAAAGCTGAGGAGGCCGTCATGAGGTGAAG  
 CGCCAGGCGATGACGGAGCTGCAGAAGGCCGTGTCTGAGGCGGAGCGGAAAGCCACGACATGATACAA  
 CAGAGAGGGCCAAGATGGAGCGCACGGTCGCCGAGGCCAAACGGCAGGCGGCGGAGGACGCACTGGCAGT  
 TATCAATCAGCAGGAGGATTCAAGCGAGAGTTGCTGGAATTGTGGCCGTAAGCGAGTGAACCTGCAGT  
 GGCTGTAAACAGCCGATACTGTGGCTCATTTTCCAGCACAAAGACTGGGAGAAGCACCATCACATCT  
 GTGGACAGACCCTGCAGGCCAGCAGCAGGAGACACCTGCAGTCAGTCTCTGTACGCCCCAACAG  
 CGGGCTGGGAGCCGATGGACACACCACAGCAGCCACTCCGAGGTCAACCACCCCGGGAACCCCTTCC  
 ACCATAGAGACAACCCCTCGC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG200898 representing NM\_175636  
 Red=Cloning site Green=Tags(s)

MPDSPVDVKTQSRLTPPTMPPPTTQGAPRTSSFPTTTLNNGTSHSPTALNGAPSPPPNGFSNGPSSSSSS  
 SLANQQLPPACGARQLSKLKRFLTTLQQFGNDISPEIGERVRTLVLGLVNSTLTIEEFHSLKQEATNFPL  
 RPFVIFPLKANLPLLQRELLHCARLAKQNPAYLAQHEQLLLDASTTSPVDSSELLLDVNENGRKRPDR  
 TKENGFDRPLHSEHPSKRPTISPGQRYSPNGLSYQPNGLPHPTPPPPQHYRLDDMAIAHHYRDSYRH  
 PSHRDLRDRNRMGLHGTRQEEMIDHRLTDREWAEWKLHDLNLCIMDMVEKTRRSLTVLRRCQEADRE  
 ELNYWIRRYSDAEDLKKGGGSSSSHSRQQSPVNPDPVALDAHREFLHRPASGYVPEEIKKAEAEAVNEVK  
 RQAMTELQKAVSEAERKAHDMITTEKAKMERTVAEAKRQAAEDALAVINQQEDSSESCWNCGRKASETCS  
 GCNTARYCGSFCQHKDWEKHHHICGQTLQAQQGDTPAVSSSVTPNSGAGSPMDTPPAATPRSTTPGTPS  
 TIETTPR

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_175636

**ORF Size:** 1701 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\\_175636.2](#)

**RefSeq Size:** 3362 bp

**RefSeq ORF:** 1704 bp

**Locus ID:** 862

**UniProt ID:** [Q06455](#)

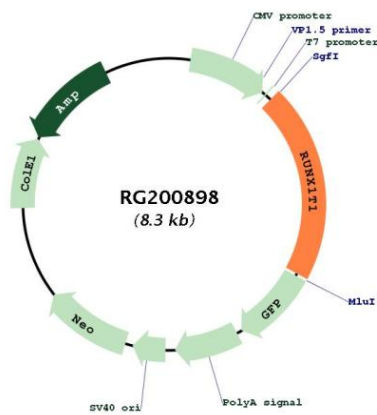
**Cytogenetics:** 8q21.3

**Protein Families:** Transcription Factors

**Protein Pathways:** Acute myeloid leukemia, Pathways in cancer

**Gene Summary:** This gene encodes a member of the myeloid translocation gene family which interact with DNA-bound transcription factors and recruit a range of corepressors to facilitate transcriptional repression. The t(8;21)(q22;q22) translocation is one of the most frequent karyotypic abnormalities in acute myeloid leukemia. The translocation produces a chimeric gene made up of the 5'-region of the runt-related transcription factor 1 gene fused to the 3'-region of this gene. The chimeric protein is thought to associate with the nuclear corepressor/histone deacetylase complex to block hematopoietic differentiation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2010]

**Product images:**



Circular map for RG200898