

Product datasheet for **RG221881**

RUNX1T1 (NM_175634) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX1T1 (NM_175634) 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:

>RG221881 representing NM_175634
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATATCTGTCAAAGAAACACTTGGAGAGCACTGAGTTAGTAATAGGTGACTGCCGAAAAAGGGA
 ACTTTGAATATTGTCAAGATCGTACTGAGAAGCACTCCACAATGCCAGACTCACCTGTGGATGTGAAGAC
 GCAATCTAGGCTGACTCCTCCAACAATGCCACCTCCCCAACTACTCAAGGAGCTCCAAGAACCAGTTCA
 TTTACACCGACAACGTTAACTAATGGCAGCAGCCATTCTCTACAGCCTTGAATGGCGCCCCCTCACAC
 CCAATGGCTTCAAGCAATGGGCTTCTCTTCTCTCTCTCTCTGGCTAATCAACAGCTGCCCCAGC
 CTGTGGTGCCAGGCAACTCAGCAAGCTGAAAAGGTTCTTACTACCCTGCAGCAGTTTGGCAATGACATT
 TCACCCGAGATAGGAGAAAGAGTTTCGCACCCTCGTTCTGGGACTAGTGAAGTCCACTTTGACAATTGAAG
 AATTTTCATTCAAAGTCAAGAAGCTACTAACTCCCAGTGCAGCCTTTTGTATCCCATTTTGAAGGC
 CAACTTGGCCCTGCTGCAGCGTGCAGCTCCTCCACTGCGCAAGACTGGCCAAACAGAACCTGCCAGTAC
 CTCGCCAGCATGAACAGCTGCTTCTGGATGCCAGCACCCTCACCTGTTGACTCCTCAGAGCTGCTTC
 TCGATGTGAACGAAAACGGGAAGAGGCGAACTCCAGACAGAACCAAGAAAAATGGCTTTGACAGAGAGCC
 TTTGCACTCAGAACATCCAAGCAAGCGACCATGCACTATTAGCCCAGGCCAGCGGTACAGTCCAAATAAC
 GGCTTATCCTACCAGCCAATGGCTGCCTCACCTACCCACCTCCACCTCAGCATTACCGTTTGGATG
 ATATGGCCATTGCCACCACTACAGGGACTCCTATCGACACCCAGCCACAGGGACCTCAGGGACAGAAA
 CAGACCTATGGGGTTGCATGGCAGCAGTCAAGAAGAAATGATTGATCACAGACTAACAGACAGAGAAATGG
 GCAGAAGAGTGGAAACATCTTGACCATGTAACTGCATAATGGACATGGTAGAAAAACAAGGCGAT
 CTCTCACCGTACTAAGGCGGTGTCAAGAAGCAGACCCGGGAAGAATTGAATTACTGGATCCGCGGTACAG
 TGACGCCGAGGACTTAAAAAAGGTGGCGCAGTAGCAGCAGCCACTTAGGCAGCAGAGTCCCGTCAAC
 CCAGACCCAGTTGCACTAGACGCGCATCGGAATTCCTTACAGGCCCTGCGTCTGGATACGTGCCAGAGG
 AGATCTGGAAGAAAGCTGAGGAGGCCGTCATGAGGTGAAGCGCCAGGCGATGACGGAGCTGAGAAGGC
 CGTGTCTGAGGCGGAGCGGAAAGCCACGACATGATCACAACAGAGAGGGCAAGATGGAGCGCACGGTC
 GCCGAGGCCAAACGGCAGGCGGCGGAGGACGCACTGGCAGTTATCAATCAGCAGGAGGATTCAAGCGAGA
 GTTGCTGGAATTGTGGCCGTAAGCGAGTGAACCTGCAGTGGCTGTAAACAGCCCGATACTGTGGCTC
 ATTTTCCAGCACAAAGACTGGGAGAAGCACCATCACATCTGTGGACAGACCCTGCAGGCCAGCAGCAG
 GGAGACACACCTGCAGTGCAGTCTCTGTACGCCAACAGCGGGGCTGGGAGCCCGATGGACACACCAC
 CAGCAGCCACTCCGAGGTCAACCACCCCGGAACCCCTTCCACCATAGAGACAACCCCTCGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221881 representing NM_175634
 Red=Cloning site Green=Tags(s)

MISVKRNTWRALSLVIGDCRKKGNFEYQDRTEKHSTMPDSPVDVKTQSRLTPPTMPPPTTQGAPRTSS
 FTPTTLNNGTSHSPTALNGAPSPNGFSNGPSSSSSSLANQQLPPACGARQLSKLKRFLTTLQQFGNDI
 SPEIGERVRTLVLGLVNSTLTIEEFHSLQEATNFPLRPFVIFLKANLPLLQRELLHCARLAKQNPAY
 LAQHEQLLLDASTTSPVDSSELLLDVNENGRRTPDRTKENGFDREPLHSEHPSKRPTISPGQRYSPNN
 GLSYQPNGLPHPTPPPQHYRLDDMAIAHHRDSYRHPSHRDLRDRNRPMLHGRQEEIMDHRLTDREW
 AEEWKHLDDLNCIMDMVEKTRRSLTVLRRCQEADREELNYWIRRYSDAEDLKKGGGSSSSHSRQSPVN
 PDPVALDAHREFLHRPASGYVPEEIWKKAEEAVNEVKRQAMTELQKAVSEAERKAHDMITTERAKMERTV
 AEAKRQAEDALAVINQQEDSSESCWNCGRKASETCSGCNTARYCGSFCQHKDWEKHHHICGQTLQAQQQ
 GDTPAVSSSVTPNSGAGSPMDTPPAATPRSTTPGTPSTIETTPR

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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:	<ol style="list-style-type: none">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_175634.3
RefSeq Size:	3217 bp
RefSeq ORF:	1815 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]