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Product datasheet for SC117449

RUNX1T1 (NM_004349) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX1T1 (NM_004349) Human Untagged Clone
Tag:	Tag Free
Symbol:	RUNX1T1
Synonyms:	AML1-MTG8; AML1T1; CBFA2T1; CDR; ETO; MTG8; ZMYND2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_004349, the custom clone sequence may differ by one or more nucleotides

ATGCCTGATCGTACTGAGAAGCACTCCACAATGCCAGACTCACCTGTGGATGTGAAGACGCAATCTAGGC
TGACTCCTCCAACAATGCCACCTCCCCCAACTACTCAAGGAGCTCCAAGAACCAGTTCATTTACACCGAC
AACGTTAACTAATGGCACGAGCCATTCTCCTACAGCCTTGAATGGCGCCCCCTCACCACCCAATGGCTTC
AGCAATGGGCCTTCCTCTTCTTCCTCCTCCTCTCTGGCTAATCAACAGCTGCCCCCAGCCTGTGGTGCCA
GGCAACTCAGCAAGCTGAAAAGGTTCCTTACTACCCTGCAGCAGTTTGGCAATGACATTTCACCCGAGAT
AGGAGAAAGAGTTCGCACCCTCGTTCTGGGACTAGTGAACTCCACTTTGACAATTGAAGAATTTCATTCC
AAACTGCAAGAAGCTACTAACTTCCCACTGAGACCTTTTGTCATCCCATTTTTGAAGGCCAACTTGCCCC
TGCTGCAGCGTGAGCTCCTCCACTGCGCAAGACTGGCCAAACAGAACCCTGCCCAGTACCTCGCCCAGCA
TGAACAGCTGCTTCTGGATGCCAGCACCACCTCACCTGTTGACTCCTCAGAGCTGCTTCTCGATGTGAAC
GAAAACGGGAAGAGGCGAACTCCAGACAGAACCAAAGAAAATGGCTTTGACAGAGAGCCTTTGCACTCAG
AACATCCAAGCAAGCGACCATGCACTATTAGCCCAGGCCAGCGGTACAGTCCAAATAACGGCTTATCCTA
CCAGCCCAATGGCCTGCCTCACCCTACCCCACCTCCACCTCAGCATTACCGTTTGGATGATATGGCCATT
GCCCACCACTACAGGGACTCCTATCGACACCCCAGCCACAGGGACCTCAGGGACAGAAACAGACCTATGG
GGTTGCATGGCACACGTCAAGAAGAAATGATTGATCACAGACTAACAGACAGAGAATGGGCAGAAGAGTG
GAAACATCTTGACCATCTGTTAAACTGCATAATGGACATGGTAGAAAAAACAAGGCGATCTCTCACCGTA
CTAAGGCGGTGTCAAGAAGCAGACCGGGAAGAATTGAATTACTGGATCCGGCGGTACAGTGACGCCGAGG
ACTTAAAAAAAGGTGGCGGCAGTAGCAGCAGCCACTCTAGGCAGCAGAGTCCCGTCAACCCAGACCCAGT
TGCACTAGACGCGCATCGGGAATTCCTTCACAGGCCTGCGTCTGGATACGTGCCAGAGGAGATCTGGAAG
AAAGCTGAGGAGGCCGTCAATGAGGTGAAGCGCCAGGCGATGACGGAGCTGCAGAAGGCCGTGTCTGAGG
CGGAGCGGAAAGCCCACGACATGATCACAACAGAGAGGGCCAAGATGGAGCGCACGGTCGCCGAGGCCAA
ACGGCAGGCGGCGGAGGACGCACTGGCAGTTATCAATCAGCAGGAGGATTCAAGCGAGAGTTGCTGGAAT
TGTGGCCGTAAAGCGAGTGAAACCTGCAGTGGCTGTAACACAGCCCGATACTGTGGCTCATTTTGCCAGC
ACAAAGACTGGGAGAAGCACCATCACATCTGTGGACAGACCCTGCAGGCCCAGCAGCAGGGAGACACACC
TGCAGTCAGCTCCTCTGTCACGCCCAACAGCGGGGCTGGGAGCCCGATGGACACACCACCAGCAGCCACT
CCGAGGTCAACCACCCCGGGAACCCCTTCCACCATAGAGACAACCCCTCGCTAG

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004349 unedited
CAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGNAATTCGCACGAGGACACAATG
TGCCATCCTGACAAGGCTTTTACTTCTGATAAGCTCCAATGTGTGTTTAATGAATACAAA
GCCGCGGTCTGGGTGCCGCCTCGGCCGCGGCCGCTCTCCCGCGCTCCTTTGCCAGAAGCT
GGCGGAGAGAATTTACATTTAAAGATTAGCAGAGTGAGAAAGAGAAATCTGCCTTTTGTT
GTGTGGGGTGAGGAGGAGGCATCTACCCCTGGCCTTGACGCTATCTCCCATCACCTCTGC
TATCCAGACAGGACTCACCGAGAAAAGATTGATCTCTGGGCTGGTGAACATAATCTCTGT
CCCAGTCAGAAAAGGAGAGAGGAAATTAGCAGAGCGATTGGTGGAGAATGATATCTGTCA
AAAGAAACACTTGGAGAGCACTGAGTTTAGTAATAGGTGACTGCCGGAAAAAAGGGAACT
TTGAATATTGTCAAGGCGCACGCGCCCAGCACCCTGCCTCCGGCGATGCCGCCCCAGCCC
CTCTGATGGCCCTCCTCTCTGCTGCCACTCATTCCAGAACAGGAGGCATGAGCCCGGAAC
GCGCTTGCTTTTAGGAGACAGCCACTTTCTGTGTGGTACGCTGGATTCAAGGATGCCTGA
TCGTACTGAGAAGCACTCCACAATGCCAGACTCACCTGTGGATGTGAAGACGCAATCTAG
GCTGACTCCTCCAACAATGCCACCTCCCCCAACTACTCAAGGAGCTCCAAGAACCAGTTC
ATTTACACCCGACACGTTAACTAATGGCACGAGCCATTCTCCTACAGCCTTGAATGGCGC
CCCCTCACCACCCATGGCTTCAGCAATGGGCCCTTNCTCTTCTTCTCCTNCTCTCTGGCT
AATCACAGCTGCCCCCAGCCTGTGGTGCCCAGCACT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004349 unedited
NNNNNNNNNNNNNTTTTTGACTTTGGACCGCGGNCCGCATNCTAGGATCGAGTTTTTTTT
TTTTTTTTTTCCTTATTGTATATAAAGAACTTGTGACTTTTAATATTAGCATTTTTGCTT
TCAACAGCAATTAGCAATCTCTTGGTTTGCTGTTTGGTAAAGCATCGGTTAATGAGGTCA
TCTAGTTTAAAATCCCAGCTACTTGAAAATAACAGGGAGGAGGTCAAATCTATCATTTCA
TGGTATATTCTCTGCTCTCTTTTCAGTTCTCTAAAGAAAAGATATCTTTGTTATCCCACA
TAAGTCATTACGACCCCGTACTGGCCCTTTGGTGTTTACTACCACCTCAAGATCACGTAG
GTCCCTTTTTGCTTGAGTCCTGGAATTGGTAATTCTTCTTTTTACCACCACCCCAAAAAC
AACTTTAAACATCTAAGGATGAGGAATGGTTTCCCGTGGTGGGGTTGGCCTTCCTCCACA
GTTCTAGATTCACGTTATCCAGGGGTTGTCTTTTGTGGGAAAGGGGTCCCCGGGGGGGGT
ACCCTCCGAGGGGTTCTGGGGGGGGGCCCCCCGCCCCCCACCCCCTTTTTTGCCGTACAA
AAAACCCCCCTCGGGGTTTTCTCCTTTTTTGTGCCCCCCGAGGTCTTCCCCAAATAGAAG
GGCCTCTTCACAACTTTGCCTGGCAAATTGACCCAAAATTTGGCTTGTTTCCACCCCCTG
AGGTTTACTTCTTTTTAGGCCATTTCCACACAACCCCCTTGAACCCCCCGGTAAGGAAAA
ATGGAAGGGCCCTCGCCCCTTGCCCTTGCCCTGGACCCGCGCCCCATTTGGCCCTTTTTT
GGAAAATGGGGGGGTTTTCCTCCCCTAAAACGCCTTTGCACTCCTTTTCG

Restriction Sites: NotI-NotI

ACCN: NM_004349

Insert Size: 2800 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

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_004349.2, NP_004340.1

RefSeq Size: 7420 bp

RefSeq ORF:	1734 bp
Locus ID:	862
UniProt ID:	Q06455
Cytogenetics:	8q21.3
Domains:	zf-MYND, TAFH
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] Transcript Variant: This variant (1) encodes isoform A. Variants 1, 5 and 6 all encode isoform A, also known as MTG8a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.