

Product datasheet for **RC222426**

RUNX1T1 (NM_175635) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUNX1T1 (NM_175635) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RUNX1T1
Synonyms:	AML1-MTG8; AML1T1; CBFA2T1; CDR; ETO; MTG8; ZMYND2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222426 representing NM_175635
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAGACTCACCTGTGGATGTGAAGACGCAATCTAGGCTGACTCCTCCAACAATGCCACCTCCCCAA
 CTAACAAGGAGCTCCAAGAACCAGTTCAATTTACACCGACAACGTTAACTAATGGCACGAGCCATTCTCC
 TACAGCCTTGAATGGCGCCCCCTACCACCCAATGGCTTCAGCAATGGGCCTTCTCTTCTCTCTCTCC
 TCTCTGGCTAATCAACAGCTGCCCCAGCCTGTGGTGCCAGGCAACTCAGCAAGCTGAAAAGTTCTTA
 CTACCCTGCAGCAGTTTGGCAATGACATTTACCCGAGATAGGAGAAAGAGTTTCGACCCTCGTTCTGGG
 ACTAGTGAACCTCACTTTGACAATTGAAGAATTTATTCCAACTGCAAGAAGCTACTAACTTCCCCTG
 AGACCTTTTGTATCCCATTTTGAAGGCCAATTGCCCTGCTGCAGCTGAGCTCCTCCACTGCGCAA
 GACTGGCCAAACAGAACCCTGCCAGTACCTCGCCAGCATGAACAGCTGCTTCTGGATGCCAGCACCAC
 CTCACCTGTTGACTCCTCAGAGTGTCTCGATGTGAACGAAAACGGGAAGAGGCGAATCCAGACAGA
 ACCAAAGAAAATGGCTTTGACAGAGAGCCTTTGCACTCAGAACATCCAAGCAAGCGACCATGCACTATTA
 GCCCAGGCCAGCGGTACAGTCCAATAACGGCTTATCCTACCAGCCCAATGGCCTGCCTCACCTACCCC
 ACCTCCACCTCAGCATTACCGTTTGGATGATATGGCCATTGCCACCCTACAGGGACTCCTATCGACAC
 CCCAGCCACAGGGACCTCAGGGACAGAAACAGACCTATGGGGTTGCATGGCACACGTCAAGAAGAAATGA
 TTGATCACAGACTAACAGACAGAGAATGGGCAGAAAGAGTGAAACATCTTGACCATCTGTAAACTGCAT
 AATGGACATGGTAGAAAAACAAGGCGATCTCTACCGTACTAAGGCGGTGTCAAGAAGCAGACCCGGAA
 GAATTAATTACTGGATCCGGCGGTACAGTGACGCCGAGGACTTAAAAAAGGTGGCGCAGTAGCAGCA
 GCCACTTAGGCAGCAGAGTCCCCTCAACCCAGACCCAGTTGCACTAGACGCGCATCGGGAATTCCTTCA
 CAGGCCTGCGTCTGGATACGTGCCAGAGGAGATCTGGAAGAAAGCTGAGGAGGCCGTCAATGAGGTGAAG
 CGCCAGGCGATGACGGAGCTGCAGAAGGCCGTGTCTGAGGCGGAGCGGAAAGCCACGACATGATACAA
 CAGAGAGGGCCAAGATGGAGCGCACGGTCGCCGAGGCCAAACGGCAGGCGGCGGAGGACGCACTGGCAGT
 TATCAATCAGCAGGAGGATTCAAGCGAGAGTTGCTGGAATTGTGGCCGTAAGCGAGTGAACCTGCAGT
 GGCTGTAAACAGCCGATACTGTGGCTCATTTTGCAGCACAAAGACTGGGAGAAGCACCATCACATCT
 GTGGACAGACCCTGCAGGCCAGCAGCAGGAGACACCTGCAGTCAGTCTCTGTACGCCCCAACAG
 CGGGCTGGGAGCCGATGGACACACCACAGCAGCCACTCCGAGGTCAACCACCCCGGAAACCCCTTCC
 ACCATAGAGACAACCCCTCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222426 representing NM_175635
 Red=Cloning site Green=Tags(s)

MPDSPVDVKTQSRLTPPTMPPPTTQGAPRTSSFPTTLTNGTSHSPTALNGAPSPPNPNSNGPSSSSSS
 SLANQQLPPACGARQLSKLKRFLTTLQQFGNDISPEIGERVRTLVLGLVNSTLTIEEFHSLKQEATNFPL
 RPFVIFPLKANLPLLQRELLHCARLAKQNPAYLAQHEQLLLDASTTSPVDSSELLLDVNENGRKRPDR
 TKENGFDRPLHSEHPSKRPTISPGQRYSPNGLSYQPNGLPHPTPPPQHYRLDDMAIAHHYRDSYRH
 PSHRDLRDRNRPMLHGTRQEEMIDHRLTDREWAEWKHLDHLLNCIMDMVEKTRRSLTVLRRCEADRE
 ELNYWIRRYSDAEDLKKGGSSSSHSRQQSPVNPDPVALDAHREFLRHPASGYVPEEIKKAEAEVNEVK
 RQAMTELQKAVSEAERKAHDMITTEKAKMERTVAEAKRQAAEDALAVINQEDSSESCWNCGRKASETCS
 GCNTARYCGSFCQHKDWEKHHHICGQTLQAQQGDTPAVSSSVTPNSGAGSPMDTPPAATPRSTTPGTPS
 TIETTPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6123_f06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_175635

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_175635.3](#)

RefSeq Size: 3233 bp

RefSeq ORF: 1704 bp

Locus ID: 862

UniProt ID: [Q06455](#)

Cytogenetics: 8q21.3

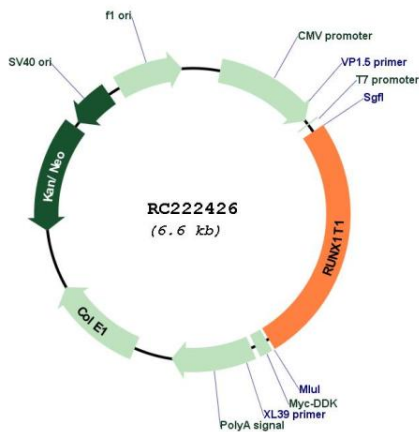
Protein Families: Transcription Factors

Protein Pathways: Acute myeloid leukemia, Pathways in cancer

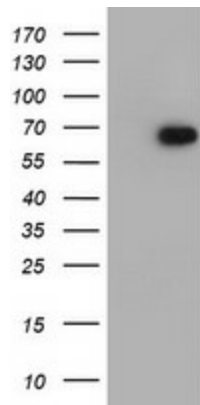
MW: 63 kDa

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]

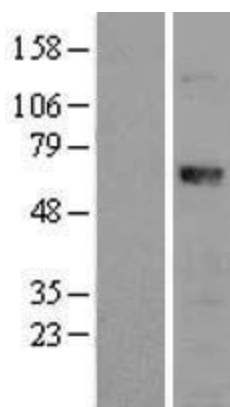
Product images:



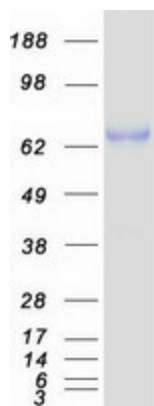
Circular map for RC222426



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RUNX1T1 (Cat# RC222426, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RUNX1T1 (Cat# [TA504703]). Positive lysates [LY403575] (100ug) and [LC403575] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403575]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222426 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RUNX1T1 protein (Cat# [TP322426]). The protein was produced from HEK293T cells transfected with RUNX1T1 cDNA clone (Cat# RC222426) using MegaTran 2.0 (Cat# [TT210002]).