

## Product datasheet for **RC212257**

### **CBFA2T3 (NM\_005187) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CBFA2T3 (NM_005187) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CBFA2T3
Synonyms:	ETO2; MTG16; MTGR2; RUNX1T3; ZMYND4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC212257 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCCGGTTC AAGACTGAGGGACAGGGCAGCCAGTTCAGCCTCGGGATCCACCTGTGGCTCCATGTCCC  
AGACGCACCCTGTGCTGGAGAGCGGCTCCTGGCATCTGCCGGCTGCTCCGCACCCCGGGTCCCAGGAA  
GGCGGCCAGCCCAAGTGGACAGGAAAGCTAAGGCTCAGCGATGCCGGACTCCCCAGCGGAGGTGAAG  
ACGCAGCCCCGGTCCACACCCCCAGCATGCCGCCACCCGCTGCCGCATCCCAGGGGCCACACGCC  
CCCCCTCCTTACGCCACACACATCGAGAGGACGGGCTGCGACGCTGCCCCAGGCCGTTTTTCATGG  
CTGCTTAAATGGTCTATGGTCTGTCTTGTGTAACGGCAGCAGCCACTACCAACAGCCATCAATGGT  
GCACCGTGACACCCAACGGCTCAGCAATGGCCCGCCACCTCGTCCACAGCCTCCTTGTCCACACAGC  
ACCTGCCCCAGCCTGCCGGGCCCGGCAGCTCAGCAAGCTCAAGCGCTTCCCTACCACACTGCAGCAGTT  
TGGCAGCGACATCTCCCAGAGATTGGGGAGCGGTGCGCACACTGGTGTGGGCTGGTGAAGTGCACA  
TTGACGATCGAGGAGTTTCATTCCAAGTTCAGGAGGCCACCAACTTCCCTCTGCCGGCCGTTGTATT  
CCTTCTGAAGGCAAACCTGCCCTTGTGCAGCGGGAGCTCCTGCACTGTGCACGCTGGCCAAGCAGAG  
GCCCGCCAGTACTTGGCCAGCATGAGCAGCTCCTGCTGGACGCCAGCGCTCCTCCCCATCGACTCC  
TCAGAGCTGCTACTGGAAGTCAACGAGAACGGCAAGAGGAGGACGCCCGACAGGACCAAAGAGAACGGGT  
CAGACCGCAGCCCGTGCACCCCGAGCCTCAGCAAACGGCCATGCACCTGAACCTGCCAGCGCTA  
CAGCCCCAGCAACGGGCCACCGCAGCCACACCGCCGCGCACTACCGCTGGAGGACATAGCCATGGCC  
CACCCTTCCGAGATGCTACCGCCACCCAGACCCCGGGAGCTACGAGAGCGCCATCGGCCGCTTGTGG  
TGCTGGGTCCCGCAGGAAGAAGTATCGACCACAAGCTCACAGAGCGTGAGTGGGCAGAAGAGTGGAA  
GCACCTCAACAACCTCCTGAACTGCATCATGGACATGGTGGAGAAGACGGGCGCTCGCTACGGTGTG  
CGCAGGTGCCAGGAGGCCGACCGGAGGAGCTCAACCACTGGGCGCGGCTACAGCGACCCGAGGACA  
CAAAGAAGGGCCCGCTCCCGCCGCGGCCCGGCCCGCAGCAGCTCCGCCGCTCCGAAGGGCTCAGCT  
AGACGTGCCTCGCGAGTTCCTGCCGAGGACCTCACCGGCTACGTGCCTGAGGACATCTGGAGGAAGGT  
GAAGAGGCCGTGAATGAGGTGAAGCGGCAGGCCATGTCGGAGCTGCAGAAAGCCGTGCGGACGCGGAGC  
GCAAAGCGCAGAGCTCATCACCGGAGCGTGCCAAGATGGAGCGGGCCCTGGCCGAGGCGAAGCGGCA  
GGCTCCGAGGACGCCCTGACGGTATCAACCAGCAGGAGGACTCCAGCGAGAGCTGCTGGAAGTCCGGG  
CGGAAAGCCAGTGAGACGTGCAGCGGTGCAACCGGCACGCTACTGCGGTCTTCTGCCAGCATCGGG  
ACTGGGAGAAGCATCACACGTGTGTGGCCAGAGCCTGCAGGGCCACAGCCGTGGTGGCCGACCCGGT  
GCCTGGACCGCCGAAGCCGCCACAGCCTGGGCCCTCCTGCCTGTGGGTGCTGCCAGCCCCAGCGAA  
GCCGGCTCGGGGGCTTCTCGCCCGGCTCCCCAGCCACCTGGCCACTGGACACCGTGCCCCGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212257 protein sequence  
Red=Cloning site Green=Tags(s)

MPASRLRDRAASSASGSTCGSMSQTHPVLESGLLASAGCSAPRGPGRKGGPAPVDRKAKASAMPDSPAEVK  
 TQPRSTPPSMPPPPAASQGATRPPSFPHTHREDGPATLPHGRFHGCLKWSMVCLLMNGSSHSPTAING  
 APCTPNFNGPATSSSTASLSTQHLPPACGARQLSKLKRFLTTLQQFGSDISPEIGERVRTLVLGLVNST  
 LTIEEFHSKLQEATNFPLRPLVIPFLKANLPLLQRELLHCARLAKQTPAQYLAQHEQLLLDASASSPIDS  
 SELLLLEVNENGRRTPDRTKENGSDRDPLHPEHLSKRPCTLNPAQRYSPSNGPPQTPPPHYRLEDIAMA  
 HHFRDAYRHPDPREL RERHRPLVVPGRQEEVIDHKLTEREWAEEWKHLNLLNCIMDMVEKTRRSLTVL  
 RRCQEADREELNHWARRYSDAEDTKKGPAPAAARPRSSSAGPEGPQLDVPREFLPRTLTGYVPEDIWRKA  
 EEAVNEVKRQAMSELQKAVSDAERKAHELITTEKMERALAEAKRQASEDALTVINQQEDSSESCWNCG  
 RKASETCSGCNAARYCGSFCQHRDWEKHHHVCGQSLQGPTAVVADVPVGPPEAAHSLGPSLPVGAASPSE  
 AGSAGPSRPGSPSPGPLDTPVR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6711\\_c07.zip](https://cdn.origene.com/chromatograms/mk6711_c07.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_005187

**ORF Size:** 1959 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](mailto: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](#)

**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\\_005187.6](#)

**RefSeq Size:** 4372 bp

**RefSeq ORF:** 1962 bp

**Locus ID:** 863

**UniProt ID:** [O75081](#)

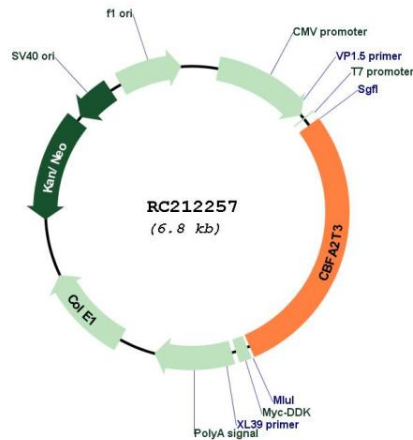
**Cytogenetics:** 16q24.3

**Domains:** zf-MYND, TAFH

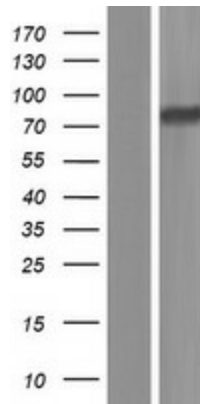
**Protein Families:** Transcription Factors

**MW:** 71.2 kDa

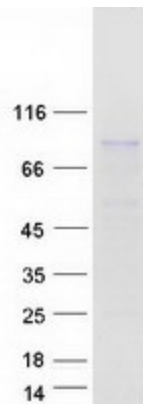
**Gene Summary:** This gene encodes a member of the myeloid translocation gene family which interact with DNA-bound transcription factors and recruit a range of corepressors to facilitate transcriptional repression. The t(16;21)(q24;q22) translocation is one of the less common karyotypic abnormalities 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. This gene is also a putative breast tumor suppressor. Alternative splicing results in transcript variants. [provided by RefSeq, Nov 2010]

**Product images:**


Circular map for RC212257



Western blot validation of overexpression lysate (Cat# [LY417457]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212257 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CBFA2T3 protein (Cat# [TP312257]). The protein was produced from HEK293T cells transfected with CBFA2T3 cDNA clone (Cat# RC212257) using MegaTran 2.0 (Cat# [TT210002]).