

## Product datasheet for **SC127577**

### **MTGR1 (CBFA2T2) (NM\_175864) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MTGR1 (CBFA2T2) (NM_175864) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTGR1
Synonyms:	core-binding factor, runt domain, alpha subunit 2; DKFZp313F2116; EHT; EHT, MTGR1, ZMYND3, DKFZp313F2116; ETO homolog on chromosome 20; MTG8-like protein; MTGR1; myeloid translocation gene-related protein 1; OTTHUMP00000030653; translocated to, 2; ZMYND3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC127577 sequence for NM\_175864 edited (data generated by NextGen Sequencing)

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ATGCCTGGATCGCCTGTGGAAGTGAAGATACAGTCCAGATCCTCACCTCCCACCATGCCA
CCCCTCCCACCAATAAATCCTGGAGGACCGAGGCCAGTGTCTTCACTCCTACTGCATTA
AGCAATGGCATCAACCATTCTCCTCCTACCCTGAATGGTGCCCATCACCGCCACAGAGA
TTCAGCAATGGTCTGCCTCCTCCACATCATCTGCACTCACAAATCAGCAATTGCCAGCC
ACTTGGGTGCTCGACAACCTCAGCAAGTTGAAACGCTTTTCTTACCCTCTGCAACAGTTT
GGCAATGACATCTCCCCTGAGATTGGGGAGAAGGTGCGGACTCTTGTCTTGCACCTGGT
AACTCAACAGTGACAATTGAGGAATTCCTGTAAGCTCCAAGAAGCCACAAACTTTCCC
CTTCGTCTTTTGTGATTCCATTTCTCAAGGCCAACCTGCCCTGCTGCAGCGGGAAGT
CTGCACTGCGCTCGGGCGGCCAAGCAGACCCCATCCCAGTACCTGGCTCAGCAGCAACAC
CTTCTGCTCAACACAAGCATTGCATCGCCTGCTGACTCGTCAGAGTTGCTCATGGAGGT
CACGGAATGGGAAGAGGCCAGTCCAGAGAGGAGAGAAGAGAATAGTTTTGATAGAGAC
ACAATTGCTCCTGAGCCTCCTGCCAAGAGAGTATGTACCATCAGCCCTGCTCCTCGGCAC
AGTCTGCTCTCACTGTGCCCTCATGAATCCCGGGGCCAATTCATCCTACCCCTCCA
CCTCTTACGATTACACCTTAGAGGATATTGCAACTTCTCACCTGTATCGGGAACCCAAC
AAGATGCTAGAGCATCGAGAAGTTCGTGATAGACACCACAGTCTTGGTCTAAATGGAGGC
TATCAAGATGAGTTGGTAGATCATCGTTTGACAGAAAAGGGAATGGGCTGATGAATGGAAA
CATCTTGACCATGCGCTGAATTGCATTATGGAAATGGTAGAGAAAACAAGGCGCTCTATG
GCAGTTCTGCGGCGCTGTGAGGAATCAGATCGTGAAGAACTCAACTACTGAAAAAGACGG
TACAATGAAAACACAGAGCTGAGGAAAACGGGGACCGAGTTGGTCTCCAGGCAGCACAGC
CCTGGGAGTGCAGATTCTCTCAGCAATGATTCTCAGAGAGAGTTCAACAGCAGGCCAGGT
ACAGGATACGTACCTGTGGAGTTTGGAAAAAACAGAGAAGCTGTGAATAAGGTGAAA
ATTAGGCCATGTCAGAAGTACAGAAGCCGTCGCTGAGGCAGAGCAGAAAAGCCTTTGAA
GTGATTGCAACAGAGAGACGACGAATGGAGCAAACCATAGCGGATGTCAAGCGGCAGGCC
GCAGAGGATGCTTTCCTCGTCATCAATGAGCAAGAGGAGTCCACGGAGAAGTGTGGAAC
TGTGGCCGCAAAGCCAGCGAGACATGCAGTGGCTGCAATATCGCGCGATACTGTGGCTCT
TTCTGCCAGCACAAAGACTGGGAGCGGCACCACCGCTCTGTGGTCTGAGAACTGCATGGC
CAGAGCCCCACGGCCAGGGCCGCGCTGCTTCTGTAGGCAGGGGCTCCTCTGCCAGG
TCCGCCGACTGCAGCGTCCCAGCCAGCCCTCGACAAGACCTCGGCAACCACATCGCGT
TCCTCAACACCTGCTTCTGTGACAGCTATCGACACCAACGGACTCTGA

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Clone variation with respect to NM\_175864.1

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_175864 unedited

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TTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTCTGGTTAGCTCGG
CGGCTGCAGATCTCGCGGCGACGCTGCGAGGGACCCGGGCCGCGGGTTCGAGCGGGCGG
CGCCTGCGAGGGACCCGTGTCGCGGGTAGAGGGCGGCGCGCGGGCGGCGCTCGGC
GATGGTAGGCGTCCCTGGAGCGGCCCTTCCAGCTTGGTCTGAGAAAAGGGTCCAGC
GATGCCTGGATCGCCTGTGGAAGTGAAGATACAGTCCAGATCCTCACCTCCCACCATGCC
ACCCCTCCCACCAATAAATCCTGGAGGACCGAGGCCAGTGTCTTCACTCCTACTGCATT
AAGCAATGGCATCAACCATTCTCCTCCTACCCTGAATGGTGCCCATCACCGCCACAGAG
ATTCAGCAATGGTCTGCCTCCTCCACATCATCTGCACTCACAAATCAGCAATTGCCAGC
CACTTGGGTGCTCGACAACCTCAGCAAGTTGAAACGCTTTTCTTACCCTCTGCAACAGTT
TGCAATGACATCTCCCCTGAGATTGGGGAGAAGGTGCGGACTCTTGTCTTGCACCTGGT
GAACTCAACAGTGACCATTGAGGAATTCCTGTTAGCTCCAAGAAGCCACAAACTTTCC
CCTTCGTCTTTTGTGATTCCATTTCTCAAGGCCAACCTGCCCTGCTGCAGCGGGAAGT
GCTGCACTGCGCTCGGGCGNCCAGCAGACCCCATCCAGTACCTGGCTCAGCAGCAACAC
CTTCTGCTCACACAAGCATTGCATCGCCTGCTGACTCGTCANAGNTGCTCATGGGAGTG
CACGNNATGGGAGAGGCCANTCCAGAGAGGAGAGAGAATAGTTTTGATAGAGCACA
TTTGCTCCTGAGCCTCTGCCAGAGAGTATGACCATCAGCCTGCTCTCGGACAGTCTGTT
TTCTGGT

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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_175864 unedited CGCGCCGCTTTCTAGTATCGAGTTTTTTTTTTTTTTTTTTTTTGTGATGTGGGGGAAGTTTTA TTTGTTTTATGTTTTGCTACTACGGGTGCTTTTATTGCAACAGTGACTTCTTTCCTGTG GACTCTGAGATCTTATCAAGTCTGAACAGCAGGGTTGAGAAGAGTCTGAATGCCGCCTG TTGCTTACCCAAGTCCCCGTGAGGCCAATCAGTGTCATCTGCTGAGGATGGAGATGGGGC CGAAGGAGCTATTCAAGGGTGAGGCAGGCCGCTCCCTGACCGAAGGGCCTTCTACACAGC CTGCTGCCTGCCGCTGCCGCTCCAGCCTGGCTGAGCACATTGGACAGTCTGCTGACTC AAGGAGATGGGGAGGGGAGCTGGTGGTCTACACTGAAAAGGGGCCGCTAAGTCAGCTTC AGTGAGAGAGGAACAAACCAGGAAAGCCATGGAGGAGGCAGCTCAAGCTGGCTGCCAT GTGCAGAGAATGGCACACTGGCTCCGCAGACAGCAAGTGACAGAGAGGCTGCGGGGTGT TATTATTCAAGCTTGGACTCTTCTGCCTCCAATTCATTTCTTGCTGATGACCCGGCAG CTACATGCACGGTTCCAACAGTCAGTCCCTCAGCCAAGCACCTCTGAGGTGCTGAGCAG CCATCATGTTAGCAGAGTCCGTGGCTCATAGTCCCGTTGGTGTGATAGCCTGTCACAG AACCAGTTGCTGAGGAACGCCATGTGGTTGCCGAGGTCTTGTGAGGCCCTGGCTGGCAC GCCTGATTGGCGACCTGTGAAAGGACCCCTGCCTACAGAAGCAATAGCCGCCCTGCC CGTGAGGCTTTGCCCTGCAGGTCTGACCACAGATCGGTGTGCCGCTCCAGTCTTGCTGG AAAAAAGCACATTTGGCGAATTGGAGCCTGTTGTTTGCTGCTGGGCCATTCCACATTTT CCGACTCCTTGCCAT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_175864
<b>Insert Size:</b>	2440 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_175864.1</a></u> , <u><a href="#">NP_787060.1</a></u>
<b>RefSeq Size:</b>	6996 bp
<b>RefSeq ORF:</b>	6996 bp
<b>Locus ID:</b>	9139
<b>Cytogenetics:</b>	20q11.21-q11.22
<b>Protein Families:</b>	Transcription Factors

**Gene Summary:**

In acute myeloid leukemia, especially in the M2 subtype, the t(8;21)(q22;q22) translocation is one of the most frequent karyotypic abnormalities. The translocation produces a chimeric gene made up of the 5'-region of the RUNX1 (AML1) gene fused to the 3'-region of the CBFA2T1 (MTG8) gene. The chimeric protein is thought to associate with the nuclear corepressor/histone deacetylase complex to block hematopoietic differentiation. The protein encoded by this gene binds to the AML1-MTG8 complex and may be important in promoting leukemogenesis. Several transcript variants are thought to exist for this gene, but the full-length nature of only three have been described. [provided by RefSeq, Jul 2008]  
Transcript Variant: This variant (1) represents the longer transcript but encodes the shorter isoform (MTGR1a).