

## Product datasheet for **MG217082**

### **Cbfa2t2 (NM\_172860) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cbfa2t2 (NM_172860) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cbfa2t2
Synonyms:	A430091M07; C330013D05Rik; Cbfa2t2h; MTGR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG217082 representing NM\_172860  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGGGCGTCCCTGGAGCGGCCCTTCCAACCTGGTTGTGAGAAAAGGGTGCCAGCAATGCCTGGAT  
 CGCCTGTGGAAGTGAAGATACAGTCAAGATCCTCACCTCCATCATGCCACCCCTCCACCAATAAATCC  
 TGGAGGACCGAGGCCAGTGTCTTTACTCTACAGCATTAAAGCAATGGCATCAACCATTCCCTCTACC  
 CTGAATGGTGCCCATCGCCACCACAGAGATTCAGCAATGGGCCTGCCTCTCCACATCGTCAGACTAA  
 CGAATCAACAGCTGCCGGCTACTTGTGGTGTCTCGGCAGCTCAGCAAGTTGAAACGCTTCTCACCCTCT  
 GCAGCAGTTTGGCAATGATATCTCACCTGAGATCGGCGAGAAGGTTGGACTCTCGTTCTAGCCTTGGT  
 AACTCAACAGTAAACAATTGAAGAATCCATTGCAAGCTCCAGGAGGCCACAACTTCTCTTTCGTCAT  
 TTGTGATTCATTTCTCAAGGCCAACCTGCCCTGCTGCAGCGAGAAGTCTGACTGTGCCGGGCTGC  
 CAAGCAGACCCCGTCCCAGTACCTGGCCAGCATGAGCACCTTCTGCTCAACACCAGTATCGCATCTCT  
 GCTGACTCTTCTGAAGTCTCATGGAGTTTCATGGAAATGGAAAGAGGCCAGTCCGGAAAGGAGGGACG  
 AGAATAATTTTGAAGAGATACAGTTCTCTCTGAACCCGCTGCCAAGAGAGTGTGTACTATCAGCCCTGC  
 TCCTCGGCACAGTCCCGCCCTACTGTTCCCTTATGAATCCTGGGGGCCAGTTCATCCTACTCCACCA  
 CCTCTTACAGCACTATACACTAGAAGACATTGCAACTTCTCACCTGTATCGGGAACCAACAAGATGCTAG  
 AACACCGAGAAGTTCTGTGAGAGGCCACAATCTTAGTCTCAATGGAGGCTATCAAGATGAGTTGGTAGA  
 CCACCGTTTGACAGAAAGGGAGTGGGCTGATGAATGGAACACCTTGACCATGCACTGAATTGCATTATG  
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 TCAACTTTGAAACCGCGGTTTAAATGAAAATACAGAGTTGAGGAAAACCTGGGACTGAGTTGGTCTTAG  
 GCAGCACAGCCCTGGGAGTACAGATTCTCTCAGCAACGATTCTCAGCGGGAATTTACCAGTAGACCAGCA  
 ACAGGATATGTGCTGTGGAGTTTTTGAAGAAAACAGAAGAAGCCGTGAATAAGGTGAAAATTCAGGCCA  
 TGTGAGAGGTACAGAAGGCTGTAGCTGAGGCAGAGCAAAAAGCCTTTGAAGTGATTGCAACGGAGAGAGC  
 TCGAATGGAGCAGACCATAGCGGATGTCAAACGGCAGGCTGCAGAAGATGCTTCTGTCATCAATGAG  
 CAAGAAGAGTCCACAGAGAACTGCTGGAAGTGTGGCCGAAAAGCCAGTGAAGCTGCACTGGCTGCAACA  
 TTGCTCGTACTGCGGCTCCTTCTGCCAGCATAAGGACTGGGAGCGGCACCACCGCTCTGTGGCCAGAG  
 TCTACATGGCCACAGTCCCACAGCCAGAGCAGGCCACTGCTCCCTGGAGGGCGGGGCTCAGCCAGGCTCT  
 GCTGACTGCAGTGTGCCAGCCAGCCCTGGACAAGACCTCAGCTACCACCTCACGGTCTCAACACCTG  
 CCTCTGTGACAGCCATTGATGCCAACGGGCTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG217082 representing NM\_172860  
 Red=Cloning site Green=Tags(s)

MVGVPGAAAFQLGCEKRVAMPGSPVEVKIQSRSSPPIMPLPPINPGGPRPVSFTPTALSNGINHSPPT  
 LNGAPSPQRFNSNGPASSTSSALTNQQLPATCGARQLSKLKRFLTTLQQFGNDISPEIGEKVRTLVLALV  
 NSTVTIEEFHCKLQEATNFPLRPFVIPFLKANLPLLQRELLHCARAAKQTPSQYLAQHEHLLNLSIASP  
 ADSSELLMEVHGNGKRSPERRDENNFERDTPPEPPAKRVCTISPAPRHSPALTVPLMNPGGQFHPTPP  
 PLQHYTLIEDIATSHLYREPKNMLEHREVRERHNLNLNGGYQDELVDHRLTEREWADEWKHLDHALNCIM  
 EMVEKTRRSMVLRRCQESDREELNYWKRFRNENTELRKTGTTELVSQRHSPGSDLSLSDNSQREFTSRPA  
 TGYVPVEFWKKTEEAVNKVKIQAMSEVQKAVAEAEQKAFEVIATERARMEQTIADVQRQAEDAFVLVINE  
 QEESTENCWNCGRKASETCSGCNIARYCGSFQHKDWERHHRLCGQSLHGHSPHSQSRPLLPGGGRSARS  
 ADCSVSPALDKTSATTSRSSTPASVTAIDANGL

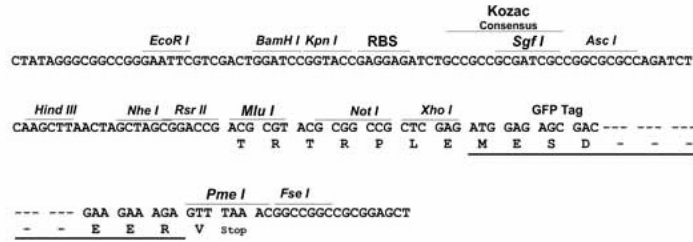
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

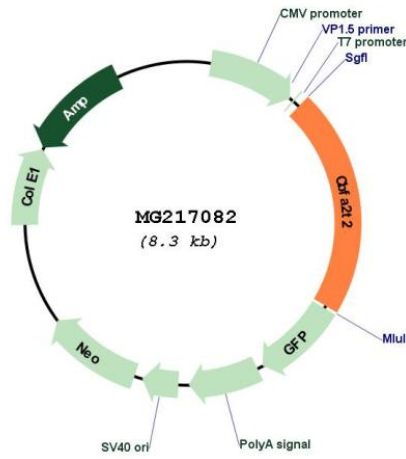
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_172860  
 ORF Size: 1782 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_172860.2</a> , <a href="#">NP_766448.1</a>
<b>RefSeq Size:</b>	6100 bp
<b>RefSeq ORF:</b>	1785 bp
<b>Locus ID:</b>	12396
<b>UniProt ID:</b>	<a href="#">O70374</a>
<b>Cytogenetics:</b>	2 H1
<b>Gene Summary:</b>	<p>Transcriptional corepressor which facilitates transcriptional repression via its association with DNA-binding transcription factors and recruitment of other corepressors and histone-modifying enzymes. Via association with PRDM14 is involved in regulation of embryonic stem cell (ESC) pluripotency. Involved in primordial germ cell (PCG) formation (PubMed:27281218). Stabilizes PRDM14 and OCT4 on chromatin in a homooligomerization-dependent manner. Can repress the expression of MMP7 in a ZBTB33-dependent manner (By similarity). Through heteromerization with CBFA2T3/MTG16 may be involved in regulation of the proliferation and the differentiation of erythroid progenitors by repressing the expression of TAL1 target genes (PubMed:19799863). Required for the maintenance of the secretory cell lineage in the small intestine (PubMed:16227606). Can inhibit Notch signaling probably by association with RBPJ and may be involved in GF11-mediated Paneth cell differentiation (PubMed:25398765).</p> <p>[UniProtKB/Swiss-Prot Function]</p>