

## Product datasheet for **MG219693**

### **Cbfa2t3 (NM\_177289) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cbfa2t3 (NM_177289) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cbfa2t3
Synonyms:	A630044F12Rik; AI465270; AW229127; Cbfa2t3h; ETO-2; Eto2; MTGR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG219693 representing NM\_177289  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCAGACTCCCCGGCTGAAGTGAAGACGCAGCCCCGGTCCACACCCCCAGCATGCCGCCCCACCTC  
 CCACCTCATCCCAGGGAGCCACAGACCACCTCCTTCACACCTCACACACTGATGAACGGCAGCAGCCA  
 CTCACCCACGGCCATCCACGGTGCCCCATCTACACCCAATGGCTTCAGCAACGGCCAGCCACCTCATCC  
 ACGGCCTCGCTCTCCACACAGCACCTGCCCGCGGTGCGGGGCACGGCAGCTCAGCAAGCTTAAGCGTT  
 TCCTCACCACCCTACAGCAGTTTGGCAGTGACATCTCACCTGAGATCGGGGAGCGGTGCGCACACTGGT  
 GCTGGGCTGGTGAACCTCAACTCTGACGATCGAAGAGTTTCATGCCAAGCTCCAGGAAGCCACCACTTT  
 CCACTGAGGCCGTTTGTATCCCTTTTCTGAAGGCTAATCTTCCACTGCTGCAGCGTGAGCTCCTGCACT  
 GTGCCCGCTGGCCAAACAGACACCTGCCAGTACCTGGCCAGCACGAACAGCTGCTGCTGGACGCCAG  
 CGCCACCTCCCCGTGACTCGTCTGAGCTCCTGCTGGAAGTCAACGAGAACGGCAAAGGAGAACCT  
 GACAGGACCAAAGAGAATGGATCAGACCCGGACCTCTGCACCCGACCACCTCAGTAAGCGGTCTGCA  
 CCCTGAGCCCCGCCAGCGCTGCAGCCCCAGCAATGGGCTGCCCCACCCGACGCCACCCCAACCCCGCA  
 CTATCGCCTGGAGGACATGGCCATGGCCACCATTTCCGGGACTCCTACCGCCATCCTGATCCCCGAGAG  
 CTACGGGAACGCCACCGGCCCTGGCCATACCTGGGTCTCGACAAGAAGAAGTATTGATCACAGGCTCA  
 CAGAACCGGAGTGGGCAGAAGAATGGAAGCACCTCAACAGTCTTCTGAACTGCATCATGGACATGGTGA  
 GAAGACCCGGCGATCCCTCACCGTCTGCGCCGGTGTGAGGAGCCGACCGTGAGGAACTCAACCACTGG  
 ATCCGGTGCTACAGTGACTCTGAGGAGGGGAAGAAGGGCCCTACCCCATCTCTGCCCGTCCCTCAACA  
 GCTGCAGTGGCCCTGAGGGTCTCAGTAGATGTTCCACGGGACTTCACGCCAGGACCTGTCTGGCTA  
 CATGCCTGAAGAGATCTGGAGGAAGGCTGAAGAAGCTGTGAATGAGGTGAAGCGCCAGGCCATGTCAGAA  
 CTACAGAAAGCTGTGTCTGATGCGGAGCCAAAGCCCATGAACTCATACCACAGAGCGTCCCAAGATGG  
 AACGAGCCTGGCGGAGGCCAAGCGACAGGCCTCGGAGGATGCCCTGACTGTATCAACCAGCAAGAGGA  
 CTCCAGCGAGAGCTGCTGGAAGTGGGGCGCAAGGCCAGCGAGACGTGCAGTGGCTGTAACGCCGCCGC  
 TACTGCGGGTCTTCTGTGAGCACAAGACTGGGAGAAACACCATCACGTGTGCGGCCAGAGTCTGCAGG  
 GCCCGCGGGTGCAGTGGCTGACCCACTACCTGGACAGCCTGACGCCACTGCCAGCCCCAGGAAGCCGG  
 CTCGGCAGGGCCCTCTGTCCTGCTCTCCGGGCGCCAGGCCCGCTGGACGCTGCTGTGCCCCG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG219693 representing NM\_177289  
 Red=Cloning site Green=Tags(s)

MPDSPAIEVKTQPRSTPPSPMPPTSSQGATRPPSFTPHLTMNGSSHSPTAIHGAPSTPNGFSNGPATSS  
 TASLSTQHLPPACGARQLSKLKRFLTTLQQFGSDISPEIGERVRTLVLGLVNSTLTIEEFHAKLQEATNF  
 PLRPFVIFPLKANLPLLQRELLHCARLAKQTPAQYLAQHEQLLLDASATSPVDSSELLLEVNENGRRT  
 DRTKENGSDRDLHPDHLKRSCTLSPAQRCSNGLPHPTPPPPHYRLEDMAAHFRDSYRHPDPRE  
 LRERHRPLAIPGSRQEEVIDHRLTEREWAEWKHLNSLLNCIMDMVEKTRRSLTVLRRCEADREELNH  
 IRCYSDSEEGKKGPTPI SARSLNSCSGPEGSQLDVHRDFTPRTL SGYMPEEIWRKAEAVNEVKRQAMSE  
 LQKAVSDAERKAHELITTEKMERALAEAKRQASEDALTVINQQEDSSESCWNCGRKASETCSGCNAAR  
 YCGSFCQHKDWEKHHHVCQSLQGPAAAVADPLPGQPDATASPSEAGSAGPSRPCSPGPPGLDAAVPR

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_177289

**ORF Size:** 1677 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\\_177289.1](#), [NP\\_796263.1](#)

**RefSeq Size:** 7600 bp

**RefSeq ORF:** 1680 bp

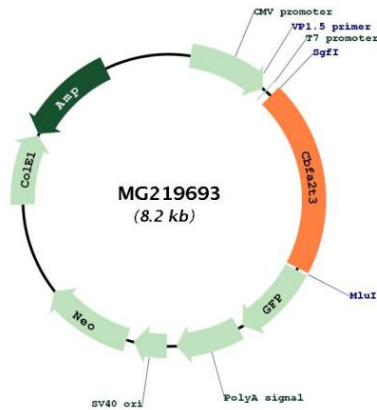
**Locus ID:** 12398

**UniProt ID:** [O54972](#)

**Cytogenetics:** 8 E1

**Gene Summary:** Transcriptional corepressor which facilitates transcriptional repression via its association with DNA-binding transcription factors and recruitment of other corepressors and histone-modifying enzymes. Can repress the expression of MMP7 in a ZBTB33-dependent manner. Reduces the protein levels and stability of the transcriptional regulator HIF1A; interacts with EGLN1 and promotes the HIF1A prolyl hydroxylation-dependent ubiquitination and proteasomal degradation pathway. Contributes to inhibition of glycolysis and stimulation of mitochondrial respiration by down-regulating the expression of glycolytic genes including PFKFB3, PFKFB4, PDK1, PFKP, LDHA and HK1 which are direct targets of HIF1A (By similarity). Regulates the proliferation and the differentiation of erythroid progenitors by repressing the expression of TAL1 target genes (PubMed:16407974). Plays a role in granulocyte differentiation (PubMed:15231665).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG219693