

Product datasheet for **MG223724**

Gfi1b (NM_001160406) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gfi1b (NM_001160406) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Gfi1b
Synonyms: Gfi-1B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG223724 representing NM_001160406
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGCCACGGTCCTTTCTAGTGAAGAGTAAGAAGGCACACACTTACCACCAGCCCCGGGCACAGGGTGATG
 AGCTGGTCTGGCCTCCTGCTGTAATTCCTGTGGCAAAGAGCATAGCCAGAGTGCCAGCCCTCTTCTCAG
 CACACCGCTTCCAAGCCAGACCTTGGACTGGAACACAATCAAACAGGAGCGGGAGATGTTGCTGAACAG
 AGCCTTCCAAGATGGCCTCAGCCCAGAGGGCCTCTCGTGACACCCCAACCCAGGATGGGAATCAC
 CACTCTCTGAGTACCCCTTTCTACAAGCCAGCTTCTCTGGGATACCTTGGCCTCCTCTACAGCCA
 CAGCTACACAGACCCCTCCACCATGCAAGTCCGCTTCTCTGGAGCGCTCCGTGAGGCTGTACGGCAGC
 CCCCTCGTGCCAGCACAGAGTCTCCCTTGGACTTCCGCCTCCGCTACTCTCCAGGCATGGACACTTACC
 ACTGTGTCAAGTGAACAAGGTGTTCTCCACCCCTCATGGGCTAGAAGTGCATGTCCGCCGCTCTCACAG
 CGGAACCCGGCCCTTTGCCTGTGATGTCTGTGGCAAACCTTTGGCCACGCTGTGAGCTTGGAGCAGCAT
 ACTCACGTCCACTCACAGGGCGTCCCAGCCGGTCCAGTCTACGCCACCTTGGCTGTCCCGGGCCTTG
 AGGCCCACTGCACCTGACCCCAAGGGCCTCGTTTCTCCGGCAGGAGCGAAGCTTCGAGTGCCGGAT
 GTGTGGCAAAGCCTTCAAGCGTTCATCCACCCTGTCCACCCACCTGCTCATCCACTCGGACACTCGGCC
 TACCCCTGCCAGTCTGTGGGAAGCGCTTCCACCAGAAGTCGGACATGAAGAAACACACCTACATCCACA
 CAGGTGAGAAGCCCAAGTGCCAGGTGTGGGAAAGCCTTCAGCCAGAGCTCCAACCTCATCACCCA
 CAGCCGCAAGCACACAGGCTTCAAGCCGTTAGCTGTGAGCTGTGCACCAAGGGCTTCCAGCGCAAGGTG
 GACCTGCGACGTACCGTGAGAGTCAACACAATCTCAAG

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG223724 representing NM_001160406
 Red=Cloning site Green=Tags(s)

MPRSFLVKSskahtyHQpRAQGDELVWPPAVIPVakeHSQsASPLLSTPLPSQTLdWNTIKQEREMLLNQ
 SLPKMASAPEGLVTPQPQDGESPLSESPFFYKPSFSWDTLASSYSHSYTQTPSTMQSAFLERSVRLYGS
 PLVPSTESPLDFRLRYSpgMDTYHCVKCNKVFSTPHGLEVHVRRSHSGTRPFACDVCgkTFGHAVSLEQH
 THVHSQGVpAGSSPTPTLAVPGLeAPPADPPGPRFLRQERSFECrMCGKAFKRSTLSTHLLIHSdTRP
 YPCQFCGKRfHQsDMkKHTYIHTGekPHKcQVCgKAFsQSSNLITHSrKHTGfKPFsCElCTKGFQRkV
 DLRRHRESQHNLK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001160406

ORF Size: 1089 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_001160406.1](#), [NP_001153878.1](#)

RefSeq Size: 1823 bp

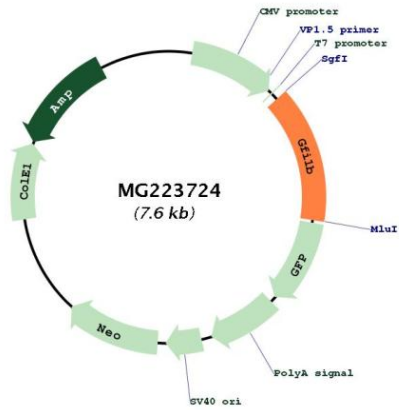
RefSeq ORF: 1092 bp

Locus ID: 14582

Cytogenetics: 2 A3

Gene Summary: Essential proto-oncogenic transcriptional regulator necessary for development and differentiation of erythroid and megakaryocytic lineages. Component of a RCOR-GFI-KDM1A-HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development and controls hematopoietic differentiation. Transcriptional repressor or activator depending on both promoter and cell type context; represses promoter activity of SOCS1 and SOCS3 and thus, may regulate cytokine signaling pathways. Cooperates with GATA1 to repress target gene transcription, such as the apoptosis regulator BCL2L1; GFI1B silencing in leukemic cell lines markedly increase apoptosis rate. Inhibits down-regulation of MYC and MYB as well as the cyclin-dependent kinase inhibitor CDKN1A/P21WAF1 in IL6-treated myelomonocytic cells. Represses expression of GATA3 in T-cell lymphomas and inhibits GATA1-mediated transcription; as GATA1 also mediates erythroid GFI1B transcription, both GATA1 and GFI1B participate in a feedback regulatory pathway controlling the expression of GFI1B gene in erythroid cells. Suppresses GATA1-mediated stimulation of GFI1B promoter through protein interaction. Binds to gamma-satellite DNA and to its own promoter, auto-repressing its own expression. Alters histone methylation by recruiting histone methyltransferase to target genes promoters. Plays a role in heterochromatin formation.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG223724