

## Product datasheet for **MR230187**

### **Gfi1 (NM\_001267621) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gfi1 (NM_001267621) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gfi1
Synonyms:	AW495828; Gfi-1; Pal-1; Pal1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230187 representing NM\_001267621  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGCGGCAGCGGGCTTCTGGAGGCCTCCTTCTGAGCGCCTTGCCCTCAGCTCCCGAATTTCCAGCCT  
 CAGATGACCAGGGGAAGCCTGGCGGGCCGCTGTGCCAGGAGCGTGCCGCCCGCCCTGGACGCCAGCT  
 GCAGCACGAGAACTCAGAGTATCCGAGGGTCCAAACATTCGTCCAGCGGCTGACCACCATGCCGCGCTCA  
 TTCCTGGTCAAGAGCAAGAAGGCGCACAGCTATCACCAGCCGCTTCTCCGGGGCCGACTACTCCCTGC  
 GCCTGGAGACCGTGCCTGCGCCGGCAGAGCAGAGGGCGCGCTGTGAGTGCAGGCGAGTCGAAAATGGA  
 GCCCGAGAGCGTTTGTCCCGGACTCTCAGCTTACCGAGGCTCCGACAGGGCCTCCGCGTCCCCAAC  
 AGCTGCGAAGGCAGCGTTTGTGACCCCTGCTCCGAGTTCGAGGACTTTTGGAGGCCCTTCTCCCTCCG  
 TGTCTCCAGCGTCGGAGAAGTCACTGTGCCGCTCTCTGGACGAAGCCAGCCCTACACGCTGCCTTTCAA  
 GCCCTATGCATGGAGCGTCTTGTGGGTCTGACCTGCGGCACCTGGTGCAGAGCTATCGGCAGTGCAGC  
 GCCTGGAGCGCAGCGCGGCCCTGAGCCTTTCTGCGAGCGCGGCTCGGAGCCGGCCGCCCGCAGCGC  
 GCTACGGCCCCGAGCAGGCTGCGGGCGGAGCCGGTGCGGGACAGCCAGGGAGCTGCGGGGTGCGCGGGG  
 CGCCACCAGCGCTGCGGGCTGGGGCTCTACGGCGACTTCGCGCCTGCGCGGCCGGGCTGTACGAGCGG  
 CCGAGCACAGCAGCAGGCCGGCTGTACCAAGATCATGGCCACGAGCTGCACGCGGACAAGAGCGTGGGCG  
 TCAAGGTGGAGTCGGAGCTGCTTTGACCCGCTGCTGCTGGCGGGCGGCTCCTACAAATGCATCAAATG  
 CAGCAAGTGTCTCCACACCGCACGGGCTGGAGGTGCACGTGCGCCGGTCCCACAGCGGCACAAGACCC  
 TTTGCGTGCAGATGTGCGGCAAGACCTTCGGGCACGCGGTGAGCCTGGAGCAACACAAGGCAGTGCAC  
 CCCAGGAACGCAGCTTTGACTGTAAGATCTGTGGCAAGAGCTTCAAGAGTGCATCCACGCTGTCCACACA  
 TCTGCTCATTCACTCGGACACCCGGCCCTATCCCTGTCTGACTGTGGCAAAAGATTCCACCAGAAGTCA  
 GATATGAAGAAACACACCTTTCATCCACACAGGTGAGAAGCCCCACAAATGCCAGGTGTGCGGCAAGCCT  
 TCAGTCAGAGCTCCAACCTCATCACTCATAGCAGAAAGCACACAGGCTTCAAGCCCTTGGCTGTGACCT  
 GTGTGGGAAGGGCTTCCAGAGGAAGGTGGATCTCAGGAGGCACCGAGAGACTCAGCATGGACTCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230187 representing NM\_001267621  
 Red=Cloning site Green=Tags(s)

MWRQRASGLLLLSALPSAPEFPASDDQGKPGGPLCQERAAPPPGRQLQHENSEYPRVQTFVQRLTTMPRS  
 FLVKSKKAHSYHQPRSPGPDYSLRLETVPAPGRAEGGAVSAGESKMEPRERLSPDSQLTEAPDRASAPN  
 SCEGSVCDPCSEFEDFWRPPSPSVSPASEKSLCRSLDEAQPYYLTFKPYAWSGLAGSDLRHLVQSYRQCS  
 ALERSAGLSLFCERGSEPRPAARYGPEQAAGGAGAGQPGSCGVAGGATSAAGLGLYGFAPAAAGLYER  
 PSTAAGRLYQDHGHELHADKSVGKVESELLCTRLLGGGSYKCIKCSKVFSTPHGLEVHVRSHSGTRP  
 FACEMCGKTFGHAVSLEQHKAVHSQERSFDCKICGKSFKRSSTLSTHLLIHS DTRPYPCQYCGKRFHQKS  
 DMKKHTFIHTGEKPHKCQVCGKAFSQSSNLIITHSRKHTGFKPFGCDLCKGKGFQRKVDLRRHRETQHLK

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

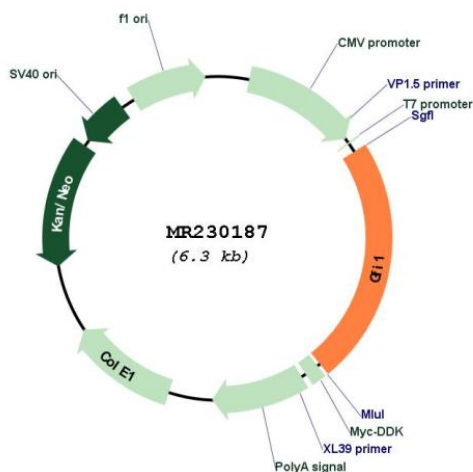
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001267621

ORF Size: 1467 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).

<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>NM_001267621.1, NP_001254550.1</u>
<b>RefSeq Size:</b>	2650 bp
<b>RefSeq ORF:</b>	1470 bp
<b>Locus ID:</b>	14581
<b>Cytogenetics:</b>	5 52.23 cM
<b>MW:</b>	53.5 kDa
<b>Gene Summary:</b>	<p>Transcription repressor essential for hematopoiesis. Functions in a cell-context and development-specific manner. Binds to 5'-TAAATCAC[AT]GCA-3' in the promoter region of a large number of genes. Component of several complexes, including the EHMT2-GFI1-HDAC1, AJUBA-GFI1-HDAC1 and RCOR-GFI-KDM1A-HDAC complexes, that suppress, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Regulates neutrophil differentiation, promotes proliferation of lymphoid cells, and is required for granulocyte development. Mediates, together with U2AF1L4, the alternative splicing of CD45 and controls T-cell receptor signaling. Regulates the endotoxin-mediated Toll-like receptor (TLR) inflammatory response by antagonizing RELA. Cooperates with CBFA2T2 to regulate ITGB1-dependent neurite growth. Controls cell-cycle progression by repressing CDKNIA/p21 transcription in response to TGFB1 via recruitment of GFI1 by ZBTB17 to the CDKNIA/p21 and CDKNIB promoters. Required for the maintenance of inner ear hair cells.[UniProtKB/Swiss-Prot Function]</p>