

## Product datasheet for **RC402615**

### **GATA1 (NM\_002049) Human Mutant ORF Clone**

#### **Product data:**

Product Type:	Mutant ORF Clones
Product Name:	GATA1 (NM_002049) Human Mutant ORF Clone
Mutation Description:	D218Y
Affected Codon#:	218
Affected NT#:	652
Nucleotide Mutation:	GATA1 Mutant (D218Y), Myc-DDK-tagged ORF clone of Homo sapiens GATA binding protein 1 (globin transcription factor 1) (GATA1) as transfection-ready DNA
Effect:	Thrombocytopeni 1
Symbol:	GATA1
Synonyms:	ERYF1; GATA-1; GF-1; GF1; NF-E1; NFE1; XLANP; XLTDA; XLTT
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_002049
ORF Size:	1239 bp
Restriction Sites:	Sgfl-Mlul



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**ORF Nucleotide Sequence:**

>RC402615 representing NM\_002049  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTTCCTGGCCTGGGGTCCCTGGGGACCTCAGAGCCCCTCCCCAGTTTGTGGATCCTGCTCTGG  
 TGTCTCCACACCAGAATCAGGGTTTTCTTCCCTCTGGGCTGAGGGCTTGGATGCAGCAGCTTCTC  
 CACTGCCCCGAGCACAGCCACCGCTGCAGCTGCGGCACTGGCCTACTACAGGGACGCTGAGGCCTACAGA  
 CACTCCCCAGTCTTTCAGGTGTACCCATTGCTCAACTGTATGGAGGGGATCCCAGGGGGCTCACCATATG  
 CCGGCTGGGCTACGGCAAGACGGGCTCTACCCTGCCTCAACTGTGTGTCCCACCCGCGAGGACTCTCC  
 TCCCCAGGCCGTGGAAGATCTGGATGAAAAGGCAGCACCAGCTTCTGGAGACTTTGAAGACAGAGCGG  
 CTGAGCCAGACCTCTGACCCTGGGACCTGCACTGCCTTCATCACTCCCTGTCCCAATAGTGCTTATG  
 GGGGCCCTGACTTTTCCAGTACCTTCTTTCTCCACCCGGAGCCCCCAATTCAGCAGCCTATTCTCT  
 TCCAAGCTTCGTGGAATCTCCCCCTGCCTCCCTGTGAGGCCAGGGAGTGTGTGAAGTCCGGAGCAACA  
 GCCACTCCACTGTGGCGGAGGTACAGGACAGGCCACTACCTATGCAACGCCTGCGGCCTCTATCACAAGA  
 TGAATGGGCAGAACAGGCCCTCATCCGGCCAAAGAAGCGCCTGATTGTCAAGTAAACGGGCAGGTA  
 CTGACCAACTGCCAGACGACCACCAGCACTGTGGCGGAGAAATGCCAGTGGGGATCCCGTGTGCAAT  
 GCCTGCGGCCTCTACTACAAGCTACACCAGGTGAACCGGCCACTGACCATGCGGAAGGATGGTATTCAGA  
 CTCGAAACCGCAAGGCATCTGGAAAAGGGAAAAAGAACGGGGCTCCAGTCTGGGAGGCACAGGAGCAGC  
 CGAAGGACCAGCTGGTGGCTTTATGGTGGTGGCTGGGGCAGCGGTAGCGGGAATTGTGGGGAGGTGGCT  
 TCAGGCCTGACACTGGGCCCCAGGTACTGCCATCTCTACCAAGCCCTGGGCCCTGTGGTGTGTGAG  
 GGCTGTAGCCACCTCATGCCTTCCCTGGACCCCTACTGGGCTCACCACGGGCTCCTCCCCACAGG  
 CCCATGCCCCACCACCAGCACTACTGTGGTGGCTCCGCTCAGCTCA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC402615 representing NM\_002049  
 Red=Cloning site Green=Tags(s)

MEFPGLGSLGTSEPLPQFVDPALVSSTPESGVFFPSGPEGLDAAASSTAPSTATAAAAAALAYYRDAEAYR  
 HSPVFQVYPLLNCMEGIPGGSPYAGWAYGKTGLYPASTVCPPTREDSPPQAVEDLDGKGSTSFLETLKTER  
 LSPDLLTLGPALPSSLPVPNSAYGGPDFSSTFFSPTGSPLNSAAYSSPKLRGTLPLPCEARECVNCGAT  
 ATPLWRRYRTGHYLCNACGLYHKMNGQNRPLIRPKRRLIVSKRAGTQCTNCQTTTTLWRRNASGDPVCN  
 ACGLYYKLHQVNRPLTMRKDGITRNRKASGKGGKRGSSLLGGTAAEGPAGGFMMVAGGSGSNGCEVA  
 SGLTLGPPGTAHLYQGLGPVVLSPVSHLMPFPGPLLGSPTGSFPTGMPPTTSTTVVAPLSS

**SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDK**V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**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).

**RefSeq:**

[NP\\_002040](#)

**RefSeq Size:**

1239 bp

**RefSeq ORF:**

1242 bp

**Locus ID:**

2623

**Cytogenetics:**

Xp11.23

**Domains:**

GATA

**Protein Families:**

Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors

**MW:**

45.4 kDa

**Gene Summary:**

This gene encodes a protein which belongs to the GATA family of transcription factors. The protein plays an important role in erythroid development by regulating the switch of fetal hemoglobin to adult hemoglobin. Mutations in this gene have been associated with X-linked dyserythropoietic anemia and thrombocytopenia. [provided by RefSeq, Jul 2008]