

Product datasheet for **RC402612**

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:	R216Q
Affected Codon#:	216
Affected NT#:	647
Nucleotide Mutation:	GATA1 Mutant (R216Q), 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:

>RC402612 representing NM_002049
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTTCCTGGCCTGGGGTCCCTGGGGACCTCAGAGCCCCTCCCCAGTTTGTGGATCCTGCTCTGG
 TGTCTCCACACCAGAATCAGGGGTTTTCTTCCCTCTGGGCTGAGGGCTTGGATGCAGCAGCTTCTC
 CACTGCCCCGAGCACAGCCACCGCTGCAGCTGCGGCACTGGCCTACTACAGGGACGCTGAGGCCTACAGA
 CACTCCCCAGTCTTTCAGGTGTACCCATTGCTCAACTGTATGGAGGGGATCCCAGGGGGCTCACCATATG
 CCGGCTGGGCTACGGCAAGACGGGCTCTACCTGCCTCAACTGTGTGTCCCACCCGCGAGGACTCTCC
 TCCCCAGGCCGTGGAAGATCTGGATGAAAAGGCAGCACCAGCTTCTGGAGACTTTGAAGACAGAGCGG
 CTGAGCCAGACCTCTGACCCTGGGACCTGCACTGCCTTCATCACTCCCTGTCCCAATAGTGCTTATG
 GGGGCCCTGACTTTTCCAGTACCTTCTTTCTCCACCCGGGAGCCCCCAATTCAGCAGCCTATTCTCT
 TCCAAGCTTCGTGGAATCTCCCCCTGCCTCCCTGTGAGGCCAGGGAGTGTGTGAAGTCCGGAGCAACA
 GCCACTCCACTGTGGCAGAGGGACAGGACAGGCCACTACCTATGCAACGCCTGCGGCCTCTATCACAAGA
 TGAATGGGCAGAACAGGCCCTCATCCGGCCAAAGAAGCGCCTGATTGTGAGTAAACGGGCAGGACTCA
 GTGCACCAACTGCCAGACGACCACCAGCACTGTGGCGGAGAAATGCCAGTGGGGATCCCGTGTGCAAT
 GCCTGCGGCCTCTACTACAAGCTACACCAGGTGAACCGGCCACTGACCATGCGGAAGGATGGTATTCAGA
 CTCGAAACCGCAAGGCATCTGGAAAAGGGAAAAAGAACGGGGCTCCAGTCTGGGAGGCACAGGAGCAGC
 CGAAGGACCAGCTGGTGGCTTTATGGTGGTGGCTGGGGCAGCGGTAGCGGGAATTGTGGGGAGGTGGCT
 TCAGGCCTGACACTGGGCCCCCAGGTACTGCCATCTCTACCAAGCCCTGGGCCCTGTGGTGTGTGAG
 GGCTGTAGCCACCTCATGCCTTTCCTGGACCCCTACTGGGCTCACCACGGGCTCCTCCCCACAGG
 CCCATGCCCCACCACCAGCACTACTGTGGTGGCTCCGCTCAGCTCA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC402612 representing NM_002049
 Red=Cloning site Green=Tags(s)

MEFPGLGSLGTSEPLPQFVDPALVSSTPESGVFFPSGPEGLDAAASSTAPSTATAAAAAALAYYRDAEAYR
 HSPVFQYVPLLNMEGIPGGSPYAGWAYGKTGLYPASTVCPTREDSPPQAVEDLDGKGSTSFLETLKTER
 LSPDLLTLGPALPSSLPVPNSAYGGPDFSSTFFSPTGSPLNSAAYSSPKLRGTLPLPCEARECVNCGAT
 ATPLWQRDRTGHYLCNACGLYHKMNGQNRPLIRPKRRLIVSKRAGTQCTNCQTTTTLWRRNASGDPVCN
 ACGLYYKLHQVNRPLTMRKDGITRNRKASGKGGKRGSSLLGGTAAEGPAGGFMMVAGGSGSNGCGEVA
 SGLTLGPPGTAHLYQGLGPVVLSPVSHLMPFPGPLLGSPTGSFPTGMPPTTSTTVVAPLSS

SGPTRRRLEQKLI**SEEDLAANDILDYKDDDDKV**

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]