

## Product datasheet for **RR214818**

### **Gys1 (NM\_001109615) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gys1 (NM_001109615) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gys1
Synonyms:	MGC156743
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RR214818 representing NM\_001109615  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCCTCTCAGCCGAGTCTCTATATGCTCCTCGTTCCAGGATTGGAAGACTGGGAGGATGAATTCGACC  
CGGAGAACGCAAGTCTTTTCGAGGTGGCTGGGAGGTGGCCAACAAGGTGGGTGGCATCTACACTGTGCT  
GCAGACGAAGGCCAAGGTGACCGGGGATGAATGGGGTGACAACACTACTATCTGGTGGGACCATACACGGAG  
CAGGGTGTGAGGACGCAAGTGGAGCTCCTGGAGCCCCAACTCCTGAACTGAAGAGGACTCTGGATTCCA  
TGAACAGCAAGGGCTGTAAGGTGATTTTGGGCGTTGGCTGATCGAGGGGGACCCTAGTGGTCTCT  
GGATGTAGGGCCTCAGCCTGGGCCCTGGAGCGCTGGAAGGGTGAACCTTTGGGACACCTGCAACATCGGG  
GTACCCTGGTACGACCGTGAAGCAATGATGCCGCTCTGTTGGTTTCTCACCACCTGGTCTCTGGGTG  
AGTTCTGGCCCAGAATGAAGAGAAGCCATATGTGGTGGCCACTTCCATGAATGGTTGGCAGGCGTTGG  
TCTGTGCTGTGCGGAGCCGGCGTTTGGCGGTGGCAACCATCTCACCACCTCAGCCACGCTGCTGGGT  
CGCTACCTATGTGCTGGTGGCCTGGACTTCTACAACAACCTGGAGAATTTCAATGTAGACAAGGAAGCAG  
GCGAGAGGCAGATCTATACCGGTACTGCATGGAGCGGGCAGCAGCCCACTGTGCCCATGTCTTCACTAC  
AGTGTCCCAGATCACCGGATTGAGGCTCAACACCTCCTCAAGAGGAAACCAGATATTGTGACCCCCAAT  
GGACTAAATGTGAAGAAGTTCTCTGCTATGCACGAATTCAGAACCTTACGCTCAGAGCAAAGCAGAA  
TCCAGGAGTTTGTGCGTGGCCATTTTTATGGGCACCTGGACTTCAACCTAGACAAGACTTTGATTTCTT  
TATCGCTGGACGCTATGAGTTTTCAACAAGGGAGCTGATATTTCTGGAGGCAATTGGCCCCGCTCAAC  
TACCTGCTCAGAGTGAATGGCAGCGAGCAAACTGTTGTGGCATTCTTATCATGCCGGCTCGGACCAACA  
ACTTCAACGTGGAAACCCTGAAGGGCCAAGCCGTGCGCAACAGCTATGGGACACAGCCAAATACAGTCAA  
GGAGAAAATTTGGGAGGAAGCTCTACGAATCCCTATTAGTGGGTAGCCTCCCCGACATGAACAAGATGCTG  
GACAAGGAGGACTTCACTATGATGAAGAGGCCATCTTTGCGACTCAGCGGCAGTCTTTCCACCGGTG  
GTACCCACAACATGCTGGATGACTCTTACAGCCCCATCTTGACCACCATCCGACGAATCGGCCTTTTCAA  
CAGTAGTGGGACCGTGTGAAGGTGATTTTTACCCAGAAATTCCTTTCTTCCACAAGCCCTCTGCTCCCC  
GTGGACTATGAAGAGTTCGTCCGTGGCTGTACCTTGGAGTCTTCCCTCCTACTATGAGCCCTGGGGCT  
ACACACCAGCGGAGTGCATGTCATGGGCATCCCGAGCATCTCCACGAACCTCTCCGGCTTTGGCTGCTT  
TATGGAGGAGCACATTGCAGATCCCTCGGCTTACGGCATTACATTCTGGATCGGAGTTCCGAAGCCTG  
GATGATTCATGCTCCCAACTCACCTCCTCCTGTACAGCTTCTGTGAGCAGAGCCGGCAGCAGCGCATCA  
TTCAGCGGAATCGCACAGAGCGATTGTCAGACCTGCTGGATTGGAAGTACCTAGGCCGGTACTACATGTC  
TGCGCGCCACATGGCTCTGGCCAAGGCCTTTCCAGACCACTTACCTATGAGCCCCATGAGGTAGATGCG  
ACCCAGGGGTACCGTTACCCACGGCCGGCCTCCGTGCCACCGTCAACCCTCACTGTCTCGACTCCAGCC  
CACACCAGAGTGAAGATGAAGAAGAGCCACGGGATGGACCCCTGAGGGAAGACAGTGAAGCGTTATGATGA  
GGAAGAAGAGGCTGCCAAGGACCGCCGCAACATCCGGGCACCCGAGTGGCCACGCCGGCCCTCTGCTCC  
TCCTCCACAGGCGGCAGCAAGAGAAGCAACTCAGTGGACTGGGCCCTCCAGCTCACTCAGTACACCCA  
CTGAGCCCCTGATCCTACCAGTTCCTGGGCGAGGAGCGCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR214818 representing NM\_001109615  
 Red=Cloning site Green=Tags(s)

MPLSRSLSMSSLPGLLEDWEDEFDPENAVLFEVAWEVANKVGGIYTVLQTKAKVTGDEWGDNYLVGPYTE  
 QGVRTQVELLEPPTPELKRTLDSMNSKGCKVYFGRWLEGGPLVLLDVGASAWALERWKGELWDCNIG  
 VPWYDREANDAVLFGFLTTFWFLGEFLAQNEEKPYVVAHFHEWLAGVGLCLCRARRLPVATIFTTHTALLG  
 RYL CAGAVDFYNNLENFNVDKEAGERQIYHRYCMERAAAHCAHVFTTVSQITAIEAQHLLKRKPDIVTPN  
 GLNVKFSAMHEFQNLHAQSKARIQEFVRGHFYGHLDNFNDKTLYFFIAGRYEFSNKGADIFLEALARLN  
 YLLRVNGSEQTVVAFFIMPARTNNFNVELTKGQAVRKQLWDTANTVKEKFGKLYESLLVGLSPDMNKML  
 DKEDFTMMKRAIFATQRQSFPPVCTHNMLDDSSDPILTTIRRIGLFNSSADRVKVIHFPEFLSSTSPLLP  
 VDYEYFVRGCHLVGFPYYPWGYTPAECTVMGIPSIISTNLSGFGCFMEEHIADPSAYGIYILDRFRSL  
 DDSCSQLTSFLYSFCQQSRRQRIIQNRTERLSDLLDWKYLGRYYMSARHMALAKAFPDPHFYEPHEVDA  
 TQGYRYRPPASVPPSPSLSRHSSPHQSEDEEPRDGLREDSERYDEEEEAAKDRRNIRAPEWPRRASC  
 SSTGGSKRSNSVDTGPSSSLSTPTEPLSPTSSLGEERN

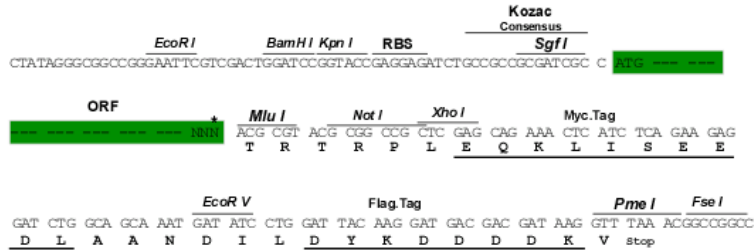
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

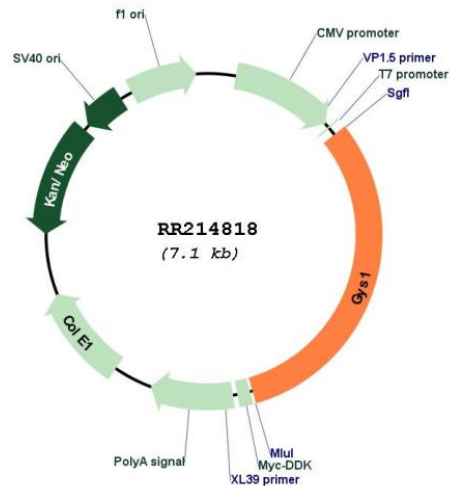
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001109615

**ORF Size:** 2214 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\\_001109615.1](#), [NP\\_001103085.1](#)

**RefSeq Size:** 3691 bp

**RefSeq ORF:** 2217 bp

**Locus ID:** 690987

**UniProt ID:** [A2RRU1](#)  
**Cytogenetics:** 1q22  
**MW:** 84.1 kDa  
**Gene Summary:** Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan.  
[UniProtKB/Swiss-Prot Function]