

Product datasheet for **RG200940**

Glycogen synthase 1 (GYS1) (NM_002103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glycogen synthase 1 (GYS1) (NM_002103) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Glycogen synthase 1
Synonyms:	GSY; GYS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG200940 representing NM_002103
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTTTAAACCGCACTTTGTCCATGTCCTCACTGCCAGGACTGGAGGACTGGGAGGATGAATTCGACC
TGGAGAACGCAGTGTCTTCGAAGTGGCCTGGGAGGTGGCTAACAAAGGTGGTGGCATCTACACGGTGT
GCAGACGAAGGCCAAGGTGACAGGGGACGAATGGGGCGCAACTACTTCCGTGGTGGGGCCGTACACGGAG
CAGGGCGTGAGGACCCAGGTGGAAGTGTGAGAGGCCCCACCCCGGCCCTGAAGAGGACTGGATTCCA
TGAACAGCAAGGGCTGCAAGGTGATTTTCGGGCGCTGGCTGATCGAGGGAGGCCCTCTGGTGGTGTCTCT
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GTGCCGTGGTACGACCGGAGGCCAACGACGCTGTCTCTTTGGCTTTCTGACCACCTGGTTCTGGGTG
AGTTCCTGGCACAGAGTGAGGAGAAGCCACATGTGGTTGCTCACTCCATGAGTGGTTGGCAGGCGTTGG
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TGTGTCCAGATCACCGCATCGAGGCACAGCACTTGTCTAAGAGGAAACCAGATATTGTGACCCCAAT
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TCCAGCGGAACCGCACGGAGCGCCTCTCCGACCTTCTGGACTGGAATACCTAGGCCGGTACTATATGTC
TGCGCGCCACATGGCGCTGTCCAAGGCCTTTCCAGAGCACTTACCTACGAGCCCAACGAGGCGGATGCG
GCCAGGGGTACCGCTACCCACGGCCAGCCTCGGTGCCACCGTCGCCCTCGCTGTACGACACTCCAGCC
CGCACCAGAGTGAGGACGAGGAGGATCCCCGGAACGGGCCGCTGGAGGAAGACGGCGAGCGCTACGATGA
GGACGAGGAGGCCGCAAGGACCGGCGCAACATCCGTGCACCAGAGTGGCCGCGCCGAGCGTCTGCACC
TCCTCCACCAGCGGCAGCAAGCGCAACTCTGTGGACACGGCCACCTCCAGCTCACTCAGCACCCCGAGCG
AGCCCCCAGCCCCACCGACTCCCTGGGCGAGGAGCGTAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200940 representing NM_002103
 Red=Cloning site Green=Tags(s)

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MPLNRTLSSSSLPGLEDWEDEFDLENVLFVAVWEVANKVGGIYTVLQTKAKVTGDEWGDNYFLVGPYTE
QGVRTQVELLEAPTPALKRTLDSMNSKGCKVYFGRWLEGGPLVLLDVGASAWALERWKGELWDCNIG
VPWYDREANDAVLFGFLTTFWFLGEFLAQSEEKPHVVAHFHEWLAGVGLCLCRARRLPVATIFTTHATLLG
RYLCAGAVDFYNNLENFNVDKEAGERQIYHRYCMERAAAHAHVFTTVSQITAIEAQHLLKRKPDIVTPN
GLNVKFSAMHEFQNLHAQSKARIQEFVRGHFYGHLDNFNDKTLYFFIAGRYEFSNKGADVFLAALARN
YLLRVNGSEQTVVAFFIMPARTNNFNVELTKGQAVRKQLWDTANTVKEKFGKLYESLLVGSLPDMNKML
DKEDFTMMKRAIFATQRQSFPPVCTHNMLDDSSDPILTTIRRIGLFNSSADRVKVIHFPEFLSSTSPLLP
VDYEEFVRGCHLVGFPSPYEPWGYTPAECTVMGIPSIISTNLSGFGCFMEEHIADPSAYGIYILDRFRSL
DDSCSQLTSFLYSFCQQSRRQRIIQNRNTERLSDLLDWKYLGRYYMSARHMLSKAFPEHFTYEPNEADA
AQGYRYRPPASVPPSPSLSRHSSPHQSEDEEDPRNGPLEEDGERYDEDEEAAKDRRNIRAPEWPRRASCT
SSTSGSKRNSVDTATSSSLSTPSEPLSPTSSLGEERN
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002103

ORF Size: 2211 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_002103.5](#)

RefSeq Size: 3574 bp

RefSeq ORF: 2214 bp

Locus ID: 2997

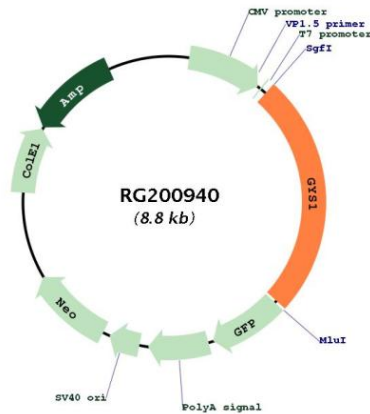
UniProt ID: [P13807](#)

Cytogenetics: 19q13.33

Protein Pathways: Insulin signaling pathway, Starch and sucrose metabolism

Gene Summary: The protein encoded by this gene catalyzes the addition of glucose monomers to the growing glycogen molecule through the formation of alpha-1,4-glycoside linkages. Mutations in this gene are associated with muscle glycogen storage disease. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

Product images:



Circular map for RG200940