

Product datasheet for **RG230135**

Glycogenin 2 (GYG2) (NM_001184702) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Glycogenin 2 (GYG2) (NM_001184702) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | GYG2 |
| Synonyms: | GN-2; GN2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG230135 representing NM_001184702
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGTGACTGATCAGGCTTTTGTCACTAGCCACCAATGACATCTACTGCCAGGGCGCCCTGGTCC
 TGGGGCAGTCACTGAGGAGACACAGGCTGACGAGGAAGCTGGTGGTGTGATCACTCCTCAGGTGTCCAG
 CCTGCTCAGGGTCATCCTCTCGAAGGTGTTTCGATGAAGTCATTGAAGTGAATCTAATCGATAGTGCCGAC
 TACATCCACCTGGCCTTTCTGAAGAGACCTGAGCTCGGGCTCACCTCACCAAGCTTCACTGTTGGACTC
 TCACTCACTACAGCAAGTGTGTCTTCTGGATGCAGACTCTGGTGTCTCCAATGTCGATGAGCTGTT
 TGACAGGGGAGAGTTTTCTGCGGCCCGGACCCCGGATGGCCGGATTGCTTCAATAGCGGGGTGTTTGTCT
 TTCCAGCCTTCTCCACACGCATAAACTCCTGCTACAGCAGCCATGGAACACGGCAGCTTTGACGGGG
 CAGACCAAGGCTTACTGAATAGTTTCTCAGGAAGTGGTCGACCACAGACATCCACAAGCACCTGCCGTT
 CATCTATAACTTGAGTAGTAACACGATGTACACTTACAGCCCTGCCTTCAAGCAATTCGGTTCAGTGCA
 AAGGTCGTCCTACTTTTGGGGTCCATGAACTTGAAGTACAAGTACAATCCACAGAGTGGCTCGGTGT
 TGGAGCAAGGCTCAGCGTCCAGCAGCCAGCACCAGGCGGCATTCTTTCATCTCTGGTGGACGGTCTACCA
 GAACAACGTGCTGCCCTTTATAAAAGCGTCCAAGCGGGGAAGCACGCGCTCTCTGGTCAACACTT
 TGCCACAGTGTGTGGGGGGCGGTGTGCGGATTCAGCCTCTGGTGTGGAGAGCCGTGTGAAAATTCAA
 CACCCAGTGGCGGCGTCCGTGTGCAAATTCACCACTGGGTTCTAACCAGCCTGCTCAGGGCCTTCCGGA
 GCCGACCCAGATAGTGGATGAGACCCTGTCCCTACCTGAAGGACGCCGTTCAGAAGATATGATAGCTTGT
 CCTGAAACTGAGACTCCTGCCGTGATAACGTGTGACCCACTGTCCAGCCTTCCCCTCAGCCTGCAGACT
 TCACAGAGACTGAAACCATCTTGCCAGCAAATAAAGTCGAAAGTGTCTCATCCGAGGAAACCTTCGAACC
 AAGCCAGGAACTCCCTGCTGAGGCTCTCAGGGACCCAGTCTGCAGGATGCACTGGAGGTCGACCTGGCC
 GTCTCTGTTTCCAGATCTCCATCGAAGAGAAGGTGAAGGAATTGAGCCCCGAGGAGAGAGGAGGAAGT
 GGGAGGAAGGCCGTATCGACTACATGGGAAGGACGCGTTTGTCTCGCATCCAGGAGAAGCTGGACCGGTT
 CCTGCAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230135 representing NM_001184702
 Red=Cloning site Green=Tags(s)

MSVTDQAFVTLATNDIYCQALVLGQSLRRHRLTRKLVVLIPTQVSSLLRVILSKVFDEIVENLIDSAD
 YIHLAFLKRPELGLTLTKLHCWTLTHYSKCVFLDADTLVLSNVDELFDGGEFSAAPDPGWPDCFNQSGV
 FQPSLHTHKLLQLHAMEHGSFDGADQGLLNSFFRNWSTTDIHKHLPIYNLSSNTMYTYSAPAFKQFGSSA
 KVVHFLGSMKPWNYKYNPQSGSVLEQGSASSQHQAFLHLWWTVYQNNVLPYKSVQAGEARASPGHTL
 CHSDVGGPCADSASGVGEPENSTPSAGVPCANSPLGSNQPAQGLPEPTQIVDETLSPGRRRSEDMIAC
 PETETPAVITCDPLSQSPQPADFTETETILPANKVESVSSEETFEPSSQELPAEALRDPQLDALEVDLA
 VVSQISIEEKVKELSPPEERRKWEGRIDYMGKDAFARIQEKLDRFLQ

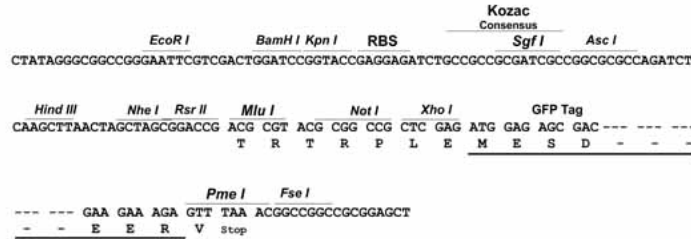
SGP**TRRRLE** – GFP Tag – V

Restriction Sites:

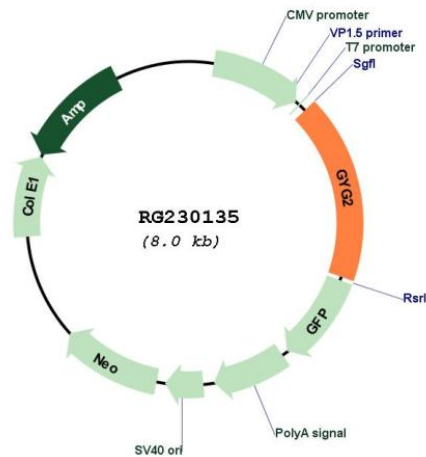
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001184702

ORF Size: 1407 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_001184702.1](#), [NP_001171631.1](#)

RefSeq Size: 3299 bp

RefSeq ORF: 1410 bp

Locus ID: 8908

UniProt ID: [O15488](#)

Cytogenetics: Xp22.33

Gene Summary: This gene encodes a member of the the glycogenin family. Glycogenin is a self-glycosylating protein involved in the initiation reactions of glycogen biosynthesis. A gene on chromosome 3 encodes the muscle glycogenin and this X-linked gene encodes the glycogenin mainly present in liver; both are involved in blood glucose homeostasis. This gene has a short version on chromosome Y, which is 3' truncated and can not make a functional protein. Multiple alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, May 2010]