

## Product datasheet for **SC112826**

### Glycogen synthase 2 (GYS2) (NM\_021957) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glycogen synthase 2 (GYS2) (NM_021957) Human Untagged Clone
Tag:	Tag Free
Symbol:	Glycogen synthase 2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >OriGene ORF within SC112826 sequence for NM\_021957 edited (data generated by NextGen Sequencing)

```

ATGCTTCGAGGCCGATCCCTCTCTGTAACATCCCTGGGTGGGCTTCCCCAGTGGGAAGTC
GAAGAACTTCCTGTGGAGGAGTTACTGCTCTTTGAAGTTGCTTGGGAAGTGACCAATAAA
GTTGGAGGCATCTATACTGTGATTGAGACAAAGGCCAAAACAACAGCAGATGAATGGGA
GAGAACTATTTTCTGATAGTCCATATTTTGTAGCATAATATGAAGACTCAGGTGGAACAG
TGTGAACCTGTAATGATGCTGTCAGAAGAGCAGTGGACGCAATGAATAAGCATGGCTGC
CAGGTGCATTTTGAAGATGGCTGATAGAAGGAAGTCCTTATGTGGTACTTTTTGACATA
GGCTATTCAGCTTGAATCTGGACAGGTGGAAGGGTGACCTCTGGGAAGCATGCAGTGTC
GGCATTCTTATCATGACCGAGAAGCCAATGATATGCTGATATTTGGATCTTTAACTGCC
TGGTTCTTAAAAGAGGTGACAGATCATGCAGATGGTAAATATGTCGTTGCCCAATCCAT
GAATGGCAGGCTGGAATTGGACTGATCCTTTCTCGAGCCAGGAACTTCTATTGCCACA
ATATTTACAACCCACGCTACACTACTTGGGAGGTATCTCTGTGCAGCAAATATTGATTTT
TACAACCATCTTGATAAGTTAACATTGACAAAGAGGCTGGGAAAGGCAGATTTACCAC
CGGTACTGCATGGAGCGAGCTTCCGTTTCATTGCGCTCACGTGTTACCACGGTTTCTGAA
ATAACAGCAATAGAAGCTGAACATATGCTGAAGAGAAAGCCTGATGTAGTTACTCCAAAC
GGCTTGAATGTTAAGAAATTTTTCAGCAGTGCATGAGTTTCAAAATCTACATGCCATGTAC
AAGGCCAGAATCCAAGATTTTGTTCGAGGTCATTTCTATGGTCATCTCGACTTTGATCTT
GAAAAGACTTTGTTCCTTTTTCATTGCTGGGAGGTATGAGTTTTCAACAAAGGAGCTGAC
ATCTTCTAGAATCCTTATCCAGGCTAAATTTCTGCTGAGGATGCATAAAAAGTGACATC
ACAGTGGTGGTGTTCATTATGCCTGCCAAGACAAATAATTTCAACGTGGAACCCCTG
AAAGGACAAGCAGTGCGAAAACAGCTGTGGGATGTTGCACATTCGTGAAGGAAAAGTTT
GGAAAAAACTCTATGATGCATTATTAAGAGGAGAAATTCCTGACCTGAACGATATTTTA
GATCGAGATGATCTAACAAATTATGAAAAGAGCCATCTTTTCAACTCAGCGACAGTCATTG
CCCCCAGTGACCACGACAACATGATTGATGACTCCACCACCCCATCCTCAGCACCATT
AGACGGATCGGACTTTTCAACAACCGCACAGATAGAGTCAAGGTGATTTTGCACCCAGAG
TTTCTATCCTCCACAGTCCCTTACTACCCATGGACTATGAAGAGTTTGTAGAGGTTGT
CATCTGGAGTATTTCCATCATACTATGAACCCTGGGGTTATACTCCAGCTGAATGCACT
GTGATGGGTATCCCCAGTGTGACCACGAATCTCTCCGGGTTTGGCTGTTTCATGCAGGAG
CACGTGGCTGATCCTACTGCTTACGGTATTTACATCGTTGACAGGCGGTTCCGTTCTCCA
GATGATTCCTGCAATCAGCTGACTAAGTTTCTCTATGGATTTTGCAAACAGTCACGCCGC
CAAAGGATTATCCAGAGGAACAGAACTGAGAGGCTCTCAGATCTTCTGGATTGGAGATAC
TTAGGCAGATATTACCAGCATGCCAGACACCTGACATTAAAGCAGAGCTTTTCCAGATAAA
TTCCATGTGGAACATAACATCACCACCAACGACAGAAGGATTTAAATATCCCAGGCCTTCC
TCAGTACCACCTTCTCCTTCCAGGCTCTCAGGCCTCCAGTCCCTCAGAGCAGTGTGTGAA
GATGAAGTGGAGGATGAGAGATACGATGAGGAAGAGGAGGCTGAAAGGGATCGGTTAAAT
ATCAAGTACCATTTTCACTGAGCCACGTTCTCATGGGAAGAAAAAGCTGCATGGTGAA
TATAAGAACTGA
    
```

Clone variation with respect to NM\_021957.3  
 1087 a=>g;1389 t=>c

<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_021957 unedited          ATAACGTCGCCAATTGTTAACCATCATATAGGCGGCCGAATCGCACCGAAAGAGAGAA          AAAGGAGGAAGATTCTCCTCCACCAGGAATTCTGTGGGAAGCACATAAGATTTTCATGC          TACTAGTTTATCCCAAGAGAAGCTACCAAAGCCTGGTAACTCTACCAACTCTAACTTTT          GTGCCTGTAAGTTCTCTCTCCTGGGATTACAATAATTGAAACAGGAATTCAAGGAGTC          TCGGAGGACTGTAAGAAGAATGCTTCGAGGCCGATCCCTCTCTGTAACATCCCTGGTGG          GCTTCCCAGTGGGAAGTGAAGAAGTTCGAGGACTTCTGTGGAGGAGTTACTGCTCTTTGAAGTTGC          TTGGGAAGTGACCAATAAAGTTGGAGGCATCTATACTGTGATTGACACAAAGGCCAAAAC          AACAGCAGATGAATGGGAGAGAACTATTTTCTGATAGGTCCATATTTTGAGCATAATAT          GAAGACTCAGGTGGAACAGTGTGAACCTGTAAATGATGCTGTCAGAAGAGCAGTGGACGC          AATGAATAAGCATGGCTGCCAGGTGCATTTTGAAGATGGCTGATAGAAGGAAGTCCCTTA          TGTGGTACTTTTTGACATAGGCTATTCAGCTTGGAACTTGGNACAGGTGGAAAGTGACC          TCTGGGAAGCATGCAGTGTGNGCATTCTTATCATGACCGAGNAAGCAATGATATGCTGA          TATTTGGATCTTTACTGCCTGGTTNCTAAAAGAAGTGACAGATCATGCAGATGGTAAAA          TATGTCGTTGCCATTCCATGAATGGCAGGCTGGAATTGNACTGATTCTTCTCGAGCCA          GGAACCTTCTATTGCCCCATTATTACACCCACGCTACAA</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_021957 unedited          NTTTTACTCTGNNACCGCGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTAA          GTTATTAATATTAATGTGTTTATTTACTTGGATTTTACAAGTTATCATCTATGAAGATT          GACCAAAATTTAAAAAGGCTTTCTATTTAAACAATAAAAAATGTTACAGTAAGATGGTG          GTACCATGTACATGGTAATATCTTGCATTAATTACAACATCAATTCTAGATTTCAAAGT          GACATAAATGTCCATTAATATGCATCAAAATATGGACTTAGGATAGCTATTCACCTCATGG          ATTTTTGTCTCTGCAAACTACATCTAAATCATGGTTCTGATGCATGTGAAAAATGAAAA          TAATCAGTAAAAACCTAGCTATTTAAAAAATGTAGGTAGTGCACATTCATGGGTAAGATC          AAGGTTTTCGGGGGGAAATGGGAAATTTGTGTGGTGGGTACACAAGCTGCATAAATAG          TAAGCAAAGGATTATGATGATCATTAAAAATAAACAGAGTAAGAGAAAAATCCTTACCAC          TTAATTCACCATTTTAAAAACTTTTCCGCTTTTCTGGCCTTAATGAGTGCTCCTCC          TCATGCCTAACTTTATGGGGGAAACAAGAGTTGGGGAAAAATAACTGGATCTTATCTTAA          ATTACAAAATTAATCATTCACTCAATTTCTTCCACTTTTTAGGCAGAGAATAAACCCTAA          GTAATACTTAGAAGGAGAAAAATGANATTTGTGGCATTTTTATTTTAAATAATTAGCTTAA          CTTTGCTTTTTTAAATTAGCTCTTCATGCAGCAGATGTAGAAATCAGNTCTTATATTAC          CATGCAGCTTTTTCTTCCATGANGAACGTGNCTAGTGAAAATGTGACTTGATTAACCG          ATCCCTNAGNCTGCTCTCTCACGNATCTCTATCCTCCACTTATCTTCACACTG</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_021957
<b>Insert Size:</b>	2930 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_021957.2</a> , <a href="#">NP_068776.1</a>
<b>RefSeq Size:</b>	2912 bp
<b>RefSeq ORF:</b>	2112 bp
<b>Locus ID:</b>	2998
<b>UniProt ID:</b>	<a href="#">P54840</a>
<b>Cytogenetics:</b>	12p12.1
<b>Protein Pathways:</b>	Insulin signaling pathway, Starch and sucrose metabolism
<b>Gene Summary:</b>	The protein encoded by this gene, liver glycogen synthase, catalyzes the rate-limiting step in the synthesis of glycogen - the transfer of a glucose molecule from UDP-glucose to a terminal branch of the glycogen molecule. Mutations in this gene cause glycogen storage disease type 0 (GSD-0) - a rare type of early childhood fasting hypoglycemia with decreased liver glycogen content. [provided by RefSeq, Dec 2009]