

Product datasheet for **SC117387**

GCSH (NM_004483) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GCSH (NM_004483) Human Untagged Clone
Tag:	Tag Free
Symbol:	GCSH
Synonyms:	GCE; NKH
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117387 sequence for NM_004483 edited (data generated by NextGen Sequencing)

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ATGGCGCTGCGAGTGGTGC GGAGCGTGC GGCCCTGCTCTGCACCCTGCGCGGGTCCCG
TTACCCGCCGCGCCCTGCCCGCCGAGGCCCTGGCAGCTGGGGGTGGGCGCCGTCCGTACG
CTGCGCACTGGACCCGCTCTGCTCTCGGTGCGTAAATTCACAGAGAAACCGAATGGGTA
ACAACAGAAAATGGCATTGGAACAGTGGGAATCAGCAATTTGCACAGGAAGCGTTGGGA
GATGTTGTTTATTGTAGTCTCCCTGAAGTTGGGACAAAATTGAACAAACAAGATGAGTTT
GGTGCTTTGGAAAGTGTGAAAGCTGCTAGTGAAGTCTATTCTCTTTATCAGGAGAAGTA
ACTGAAATTAATGAAGCTCTTGCAGAAAATCCAGGACTTGTAACAAATCTTGTTATGAA
GATGGTTGGCTGATCAAGATGACTGAGTAACCCTTCAGAACTAGATGAAGTATGAGT
GAAGAAGCATATGAGAAATACATAAAATCTATTGAGGAGTGA
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Clone variation with respect to NM_004483.4
62 c=>t



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_004483 unedited TTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCAAGAGGCCGCACCCCTGCGAA CATGGCGCTGCGAGTGGTGCAGGAGCGTGCAGGCGCCCTGCTCTGCACCCCTGCGCGCGGTCCC GTTACCCGCCGCGCCCTGCCCGCAGGGCCCTGGCAGCTGGGGGTGGGCGCCGTCCTGAC GCTGCGCACTGGACCCGCTCTGCTCTCGGTGCGTAAATTCACAGAGAAACACGAATGGGT AACACAGAAAAATGGCATTGGAACAGTGGGAATCAGCAATTTTGCACAGGAAGCGTTGGG AGATGTTGTTTATTGTAGTCTCCCTGAAGTTGGGACAAAATGAACAAACAAGATGAGTT TGGTGCTTTGAAAGTGTGAAAGCTGCTAGTGAAGTCTATTCTCCTTTATCAGGAGAAGT AACTGAAATTAATGAAGCTCTTGACAGAAAATCCAGGACTTGTAACAAATCTTGTATGA AGATGGTTGGCTGATCAAGATGACACTGAGTAACCCCTTCAGAACTAGATGAACTTATGAG TGAAGAAGCATATGAGAAATACATAAAAATCTATTGAGGAGTAAAATGAACTCCTAAAT AACTAGTATGAAATAACGCAAGCCAGCAGAGTTGTCTTAAATAGTGGTGGATAGAAGA CTTAGAATAGAAGTCTTAGTATTACCGATGGGAAAAAAAATCTACTGTTAACACTGCTA ATGAAAGAAAATGCCCTTAACTNTCTAATGATTATAGATAAATAAANTATGCGTCTTT NTCACAATATCCTATGATTNNTAGACTANGCTNCTAGTGGTCAGAAATCATNNGAATATN CATGGNTANAAGTANGTATAAAAATTACATAATCAAGATNACATTGNTATNCNTAAGCC TATNNTATATNGNCACTG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_004483 unedited CGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTAAACGAAGAAGTATTT TATTATTTTGGCTGCAAAGCTGTTGCTTCACTGTATAAAAATAGCACCAGCAAATGCAGTG TATCGCAAAATTAAGATAGTGGTGTTCCTCATCTGACACTGTACAAGCAACAAAACCTCT TCACTTCCAGTTATTTCCAATGGAAAGATCATTAAAGTATTTTATCCCAAATCCAGGTATG GATACATGCAAGTTACAATATTATATAAGGCTTAAAGAAACAATGTTATCTTTGAATTA TGTAATTTTTATAACTAGTTTTTACCATGGATAATTTTATGAATTTCTGAACACTAGAGCC TAGTCTAAAAATCATAGGATATTGTGAAAAAGACGCATATTATATTTATCTATAATCATT AGAAAGTTAAAGGGCATTCTTTTCTTCACTAGCAGTGTAAACAGTAGTTTTTTTTTCCCAT CGGTAATACTAAAAGTTTCTATTCTAAGTCTTCTATCCACCACTAATTTAAGACAACCTCT GCTGGCTTGCCTTATTTCACTAGTTTATTTAGGAGTCCATTTTCACTCCTCAATAGA TTTATGATTTCTCAATGCCTTTCACTCATAGTTCATCTAGTCTGAAGGGTTACTCAGTG GCATTTTTGATCAGCAACCATTTTATACAAAAATTTGTTTACAAGCCCTGGATTTTTTG CAGACTTCATAATTTCCGTAATTTCCCTGATAAAGAGAATAGAGTTACTTNCAGTTTTAC ACTTTCCAAAGCACCAAATATTTTGGTTGGTCAATTTGGCCCACTTAGGGAAATACATA AAAACATTTCCAAGCGTTCTGGGAAAATGGGGATCCACTGTTCAAGCCATTTTGTGGCC CCTCCCGTTTTCTTGAATACCCCAAAAACAACGGTCCAGGCAN</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_004483
Insert Size:	1150 bp
OTI Disclaimer:	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).
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_004483.3](#), [NP_004474.2](#)

RefSeq Size: 1161 bp

RefSeq ORF: 522 bp

Locus ID: 2653

UniProt ID: [P23434](#)

Cytogenetics: 16q23.2

Domains: GCV_H

Gene Summary: Degradation of glycine is brought about by the glycine cleavage system, which is composed of four mitochondrial protein components: P protein (a pyridoxal phosphate-dependent glycine decarboxylase), H protein (a lipoic acid-containing protein), T protein (a tetrahydrofolate-requiring enzyme), and L protein (a lipoamide dehydrogenase). The protein encoded by this gene is the H protein, which transfers the methylamine group of glycine from the P protein to the T protein. Defects in this gene are a cause of nonketotic hyperglycinemia (NKH). Two transcript variants, one protein-coding and the other probably not protein-coding, have been found for this gene. Also, several transcribed and non-transcribed pseudogenes of this gene exist throughout the genome. [provided by RefSeq, Jan 2010]

Transcript Variant: This variant (1) represents the longer transcript and is the protein-coding variant. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.