

Product datasheet for **RG217886**

GCSH (NM_004483) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GCSH (NM_004483) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GCSH
Synonyms: GCE; NKH
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG217886 representing NM_004483
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGCTGCGAGTGGTGCGGAGCGTGCGGGCCCTGCTCTGCACCCTGCGCGGGTCCCCTCACCCGCCG
 CGCCCTGCCCGCCGAGGCCCTGGCAGCTGGGGGTGGGCGCCGTCCGTACGCTGCGCACTGGACCCGCTCT
 GCTCTCGGTGCGTAAATTCACAGAGAAACACGAATGGGTAAACAGAAAATGGCATTGGAACAGTGGGA
 ATCAGCAATTTTGCACAGGAAGCGTTGGGAGATGTTGTTTATTGTAGTCTCCCTGAAGTTGGACAAAAT
 TGAACAAACAAGATGAGTTTGGTGCTTTGGAAAGTGTAAGCTGCTAGTGAAGTCTATTCTCCTTTATC
 AGGAGAAGTAACTGAAATTAATGAAGCTTTGCAGAAAATCCAGGACTTGTAACAAATCTGTTATGAA
 GATGGTTGGCTGATCAAGATGACACTGAGTAACCTTCAGAACTAGATGAAGTATGAGTGAAGAAGCAT
 ATGAGAAATACATAAAATCTATTGAGGAG

A**CGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217886 representing NM_004483
 Red=Cloning site Green=Tags(s)

MALRVVRSVRALLCTLRAVPSPAAPCPRPWQLGVGAVRTLRTGPALLSVRKFTKEHEWVTENGIGTVG
 ISNFAQEALGDVYVYCSLPEVGTKLNKQDEFGALESVKAASELYSPLSGEVTEINEALAENPGLVNKSCYE
 DGWLKMTLSNPSELDELMSEEAYEKYIKSIEE

T**R**TRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:



ACCN: NM_004483

ORF Size: 519 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004483.5](#)

RefSeq Size: 1161 bp

RefSeq ORF: 522 bp

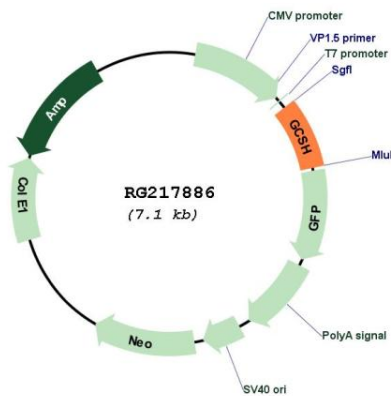
Locus ID: 2653

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]

Product images:



Circular map for RG217886