

## Product datasheet for **SC320175**

### GCDH (NM\_000159) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GCDH (NM_000159) Human Untagged Clone
Tag:	Tag Free
Symbol:	GCDH
Synonyms:	ACAD5; GCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_000159.2  
 CGGCAGTGAACCGGGAGGTAACCAGGTGCGCCGTCGTTGCTCCGCTCGCTCTGAGAGAG  
 CATGGCCCTGAGAGGCGTCTCCGTGCGGCTGCTGAGCCGCGGACCCGGCCTGCACGTCCT  
 TCGCACGTGGGTCTCGTCGGCGGCGCAGACCGAGAAAGCGGGGAGAACACAGAGCCA  
 GGCTAAGTCTCGCGTCCCGAGTTTACTGGCAGGACCCGCTGGTGTGGAGGAGCAGCT  
 GACCACAGATGAGATCCTCATCAGGGACACCTCCGCACCTACTGCCAGGAGAGACTCAT  
 GCCTCGCATCCTGTTGGCCAATCGCAACGAAGTTTTTCATCGGGAGATCATTTCCGAGAT  
 GGGGAGTTGGGTGTGCTGGGCCCCACCATCAAAGGATATGGCTGTGCTGGGGTTTCGTC  
 TGTGGCCTATGGGCTCCTGGCCCAGAGCTGGAGCGGGTGGACAGTGGCTACAGGTGCGG  
 GATGAGTGTCCAGTCTCCCTCGTCATGCACCCTATCTATGCCTATGGCAGCGAGGAACA  
 GCGGCAGAAGTACCTGCCCCAGCTGGCCAAGGGGGAGCTCCTGGGCTGCTTCGGGCTCAC  
 AGAGCCCAACAGCGGAAGTGACCCAGCAGCATGGAGACCAGAGCCCACTACAATCATC  
 CAACAAGAGCTACACCCTCAATGGGACCAAGACCTGGATCAGAACTCGCCTATGGCCGA  
 TCTGTTTGTAGTGTGGGCTCGGTGTGAAGATGGCTGCATTGGGGCTTCTGCTGGAGAA  
 GGGGATGCGGGTCTCTCGGCCCCAGGATCCAGGGCAAGTTCTCGCTGCGGGCCTCAGC  
 CACAGGCATGATCATCATGGACGGTGTGGAGGTGCCAGAGGAGAATGTGCTCCCTGGTGC  
 ATCCAGCCTGGGGGTCCTTCGGCTGCCTGAACAACGCCCGGTACGGCATCGCGTGGGG  
 CGTGCTTGGAGCTTCGGAGTTTCTGCTTGCACACAGCCCGCAGTACGCCCTCGACAGGAT  
 GCAGTTTGGTGTCCCCTGGCCAGGAACCAGCTGATTGAGAAAGCTGGCAGACATGCT  
 CACTGAGATTACCCTGGGCTTCACGCCTGCCTGCAGCTCGGCCGCTTGAAGGACCAGGA  
 CAAGGCTGCCCCGAGATGGTTTCTGCTGAAGAGGAATAACTGTGGGAAAGCCCTGGA  
 CATCGCCCGCCAGGCCGAGACATGCTGGGGGGGAATGGGATTTCTGACGAGTATCACGT  
 GATCCGGCAGCCATGAACCTGGAGGCCGTGAACACCTACGAAGGTACACATGACATTCA  
 CGCCCTGATCCTTGGGAGAGCTATCACGGGAATCCAGGCGTTACGGCCAGCAAGTGAGC  
 CGCTCCATCAGGGGCCGAAACTCTCAAGCCCTTTCTGGAGAGATGCCTGGCTGGACCG  
 TAGGAGCGCTGTGCTCTGAGCTTAGAAAGGGAGGTGGCGGATGGGGTGGGAAGTGAGAGA  
 CACTGATTTTTAAATATCAAAATTTCCCTTCTGAAGTCGTTTCGGATGTGTTCTTAAAAA  
 GAAGATGGAATTCTGTAGAGCGTCTCAATCCACTTTTAACCATGGATGAGAGCAGACT  
 CCATTTACCCTGAAATAGCAGCTTCTTGTAGAGGAGAGTGACATGGAAGCAACTCCGTC  
 TGCTGCAGCTGACCCCTCACACTGAGTTCACAGTGCGCCCTCCCTCCCTCCCATCTGGG  
 GGTAGTGCCTTATGCTGGGTGTTGGAGCAGAGTGAGGGAGAGGAAAATAAAGACCTGCAC  
 ATCTGAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_000159

**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).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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).

<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_000159.2</a> , <a href="#">NP_000150.1</a>
<b>RefSeq Size:</b>	1839 bp
<b>RefSeq ORF:</b>	1317 bp
<b>Locus ID:</b>	2639
<b>UniProt ID:</b>	<a href="#">Q92947</a>
<b>Cytogenetics:</b>	19p13.13
<b>Domains:</b>	Acyl-CoA_dh, Acyl-CoA_dh_M, Acyl-CoA_dh_N
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Fatty acid metabolism, Lysine degradation, Metabolic pathways, Tryptophan metabolism
<b>Gene Summary:</b>	<p>The protein encoded by this gene belongs to the acyl-CoA dehydrogenase family. It catalyzes the oxidative decarboxylation of glutaryl-CoA to crotonyl-CoA and CO(2) in the degradative pathway of L-lysine, L-hydroxylysine, and L-tryptophan metabolism. It uses electron transfer flavoprotein as its electron acceptor. The enzyme exists in the mitochondrial matrix as a homotetramer of 45-kD subunits. Mutations in this gene result in the metabolic disorder glutaric aciduria type 1, which is also known as glutaric acidemia type I. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 12. [provided by RefSeq, Mar 2013]</p> <p>Transcript Variant: This variant (1) encodes the longer isoform (a, also known as the long isoform).</p>