

## Product datasheet for **SC124128**

### DMGDH (NM\_013391) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DMGDH (NM_013391) Human Untagged Clone
Tag:	Tag Free
Symbol:	DMGDH
Synonyms:	DMGDHD; ME2GLYDH
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_013391, the custom clone sequence may differ by one or more nucleotides

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ATGCTCCGTCGCCGGCGCAGCTGCTGCGGGCCCTCTGCTGCGGAGCTGCCCGCTGCAGGGCTCCCCCG
GGCGCCCGCCTCTGCTGCGGCCGGGAAGGAGAGGAAAAACCACCTTATCTGCAGAAACACAATGGAA
AGACAGAGCAGAAACAGTGATAATTGGAGGTGGCTGTGTTGGTGTGAGTCTGGCTTATCACCTGGCCAAA
GCAGGGATGAAAGATGTGGTCTCTGCTGGAGAAATCAGAGCTCACGGCTGGATCTACCTGGCAGCAGCAG
GTTTAACAACCTTACTTTTCATCCTGGAATAAACTTGAAGAAAAATACATTATGATAGCATCAAACCTTATGA
GAAACTGGAAGAAGAACTGGTCAGGTGGTGGGATTCCATCAGCCAGGTAGTATCAGACTTGCTACCACC
CCTGTAAGGGTAGATGAATTTAAATATCAAATGACTCGGACTGGCTGGCATGCAACAGAACAGTATCTCA
TTGAACCTGAAAAAATCAAGAGATGTTCCCTTACTCAACATGAATAAGGTTTTAGCTGGATTGTATAA
TCCTGGAGATGGTCACATTGATCCTTATTCTCTAACTATGGCACTGGCTGCTGGGGCTAGGAAATGTGGT
GCCCTTTTAAAAATCCTGCACCAGTAACCTCTCTGAAAGCCAGGTGAGTGAACATGGGACGTTGAAA
CACCACAGGGTCTATGAGAGCAATAGAATTGTGAATGCTGCAGGATTTGGGCTCGTGAAGTAGGTAA
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GTGAAAGCTTTGAAACGAGAAGTGCCTGTGCTCCGTGACCTGGAAGGATCATATTATCTCCGACAGGAAA
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TGGATAAGGATAATCCACGCTGGTGGGTAGGGAAATATCTCAGTACTGGATCCTGATGGAGAACCT
CCTTTTGTCTGATAGAATTGGATCCTAATCGCTATGGCAAATGGACAACAACCCAGTACTGAGGCCA
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TGGCAAGTTTAAACATCAAAGGCCAAGATTCCATTAGACTACTGGACCATCTTTTGCAAATGTCATTCCA
AAGGTGGGTTTTACAAATATAAGTCACATGTTAACACCCAAGGGTCGAGTGTATGCTGAGCTGACTGTTT
CTCACCAATCTCCTGGGAGTTTCTTTAATTACTGGCTCTGGATCAGAAGTTCATGATCTTAGATGGAT
TGAAGAAGAAGCAGTCAAAGGTGGATATGATGTTGAAATTAACAACTAAGTATGAGCTTGGAGTTCTT
GGAGTTGCTGGGCCACAGGCAAGAAAGGTCCTTCAGAACTGACCTCTGAAGATCTTAGTATGATGTTT
TCAAGTTTCTTCAAACCAAGTCCTTAAAGGTTTCCAACATTCTGTCACTGCTATTAGGATATCTTATAC
TGGTGAGCTGGGTTGGGAGCTGTATCACAGAAGAGAAGATTCTGTGGCGCTGTATGACGCTATCATGAAT
GCAGGCCAGGAGGAGGGAATCGACAATTTTGGAACTATGCCATGAATGCCTTACGCCTGGAGAAAGCCT
TCAGAGCCTGGGGTTAGAGATGAAGTGTATACAAATCCTTTGGAAGCTGGACTGGAATATTTGTGAA
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AGACTGGTCTGCCTCACCTTGGCAACGGATGATGTTGATCCAGAGGGAATGAAAGCATCTGGTACAATG
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TGTCCTGTACAATAAGTGAAGTGGGACAGCAAGTGAAGTTGAACTATTAGGCAAAAAATTACCCAGCA
GTCATCATACAAGAACCTTTGGTATTGACCGAACCAACCAGAAACCGGCTTCAGAAAAAAGGTGGAAGG
ACAAAACCTTGA
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_013391 unedited</p> <pre> AGGGGATGGATTGNNCNAATGAGTCAGCCTTTTGTAAATACGCGAGAGTATAGGGCGGCC GCGAATTNGGCCGAGGCC TAGTCATGCTCCGTCGCCGGCGCAGCTGCTGCGGGGCTCC TGCTGCGGAGCTGCCCGCTGCAGGGCTCCCCGGGGCGCCCGCTCTGTCTGCGGGCCGG AAGGAGAGGAAAAACCACCTTATCTGCAGAAACACAATGGAAAGACAGAGCAGAAACAG TGATAATTGGAGGTGGCTGTGTTGGTGTGAGCTGGCTTATCACCTGGCCAAAGCAGGGA TGAAAGATGTGGTCTCTGCTGGAGAAATCAGAGCTCACGGCTGGATCTACCTGGCACGCAG CAGGTTTAAACAATTACTTTTCATCCTGGAATAAACTTGAAGAAAATACATTATGATAGCA TCAAACCTTATGAGAACTGGAAGAAGAACTGGTCAGGTGGTGGGATTCCATCAGCCAG GTAGTATCAGACTTGCTACCACCCTGTGAGGGTTGATGAATTTAAATATCAAATGACTC GGACTGGTGGCATGCAACAGAACAGTATCTCATTGAACCTGAAAAAATCAAGAGATGT TCCCCTTACTCCACATGGATAAGGGTTTAACTTGGATGGATAATCCCTGGGATGGGCACA ATGATCCCTATCTAACTATTGCACTGGTGGTGGGGCTATGAAATATGGTGCGCCTT TTAAATATTCTGGCCACGTACTTCTTTGAAGCCAGTCAGATGGACATGGGACCTGAAACC CCCGGTCTTTGAGCAAATAATTGGAGCGGC </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_013391 unedited</p> <pre> TCCGGAGCGCGGAGAGGCACTGGGGAGGGGTCAAGGGATGCCACCCGGGATCTGTTCCAGG AAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTACATGTTTTATGTAAAAATAATTTATTAATTTGTTTTTC AGCTGTCAAGAACCGAATGCTTTTGTACTAAAATTATAAAATGTCCCTAATTAGGTTA TAGTAATGATTGGGTATTTTAGCAAACACCTAAATGTTTTACTGATTGGGTAATGGGGGG TAAATAAAAAAACATTTCATTTCAAATTTTTTCATTTAAAAAAACAATGGAATCATTAT CTATTATTCTGGCTTGCTTAAAAAACACTTAACAGAAAGGTTTCATTAATAATTCTAAATT TAAACTTTGATGATTTTGAATGAATTCCTGGTTTCTCTATTCCCCTGGGAGCCAGTTA TAATAATTTCAAGGACAGTCATTAGCAACTTAAATTCAGTTGACTGCTGAAGGTCTTTTT TCAAGTTTGGTCCTTTCCCCTTTTTTTTGAACCCGGTTTCTGGTTGGTTCGGTCAATCC CAAAGGTTCTTGTGTTGATGACTGCTGGGTAATTTTGCCTATAGTTAACTTCATTGGTGTC CACTTATTTATTGCCAGGCCATTTCAAAGCAACTCTTTGGATCTGACTATGCTCAAATTC GGTGACACCTGCCTTGACAAGCTTAT </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_013391
<b>Insert Size:</b>	3700 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>

RefSeq:	<a href="#">NM_013391.2</a> , <a href="#">NP_037523.2</a>
RefSeq Size:	3104 bp
RefSeq ORF:	2601 bp
Locus ID:	29958
UniProt ID:	<a href="#">Q9UI17</a>
Cytogenetics:	5q14.1
Domains:	DAO, GCV_T
Protein Pathways:	Glycine, serine and threonine metabolism, Metabolic pathways
Gene Summary:	<p>This gene encodes an enzyme involved in the catabolism of choline, catalyzing the oxidative demethylation of dimethylglycine to form sarcosine. The enzyme is found as a monomer in the mitochondrial matrix, and uses flavin adenine dinucleotide and folate as cofactors. Mutation in this gene causes dimethylglycine dehydrogenase deficiency, characterized by a fishlike body odor, chronic muscle fatigue, and elevated levels of the muscle form of creatine kinase in serum. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the supported protein.</p>