

Product datasheet for **SC125992**

HOGA1 (NM_138413) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HOGA1 (NM_138413) Human Untagged Clone
Tag:	Tag Free
Symbol:	HOGA1
Synonyms:	C10orf65; DHDPS2; DHDPSL; HP3; NPL2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for NM_138413 edited
 AGTGCTGGGAATTGTGGGAGGAGGGCCAGATCCCACTGGAGATACCGAAGGAGATACTC
 TTTAGTATTGGGATCCCAGAAACAGTCCTATATCTGGCCAGAGGGACACTGGGTTGTGG
 CATCTCTCTAGCTGTACCGAGAAGGAACAGGGCCCCCTGGGGCCTATAGGCCTTGCCCC
 TGACCCCTGGGAACACGCAGCTCAGGCCTGCCCCAGTGGCCACAAGTCAGGGAGGCCGCAA
 ATTTTAACTAGAAACATTGATCATTAAAGGGGGTTAGAAAGAGTTCAAACAAAGTCTC
 ACTCTGGGACATAGACCAATTGTGCTTCAGGCCTCCTGCAGAGATGCTGGGTCCCAAGT
 CTGGTCTTCTGTGAGGCAGGGGCTAAGCAGGAGCTTGTCCAGGAATGTGGGGGTCTGGGC
 CTCAGGGGAGGGGAAGAAGGTGGACATTGCGGGTATCTACCCCCCTGTGACCACCCCTT
 CACTGCCACTGCAGAGGTGGACTATGGGAACTGGAGGAGAATCTGCACAACTGGGCAC
 CTTCCCTTCCGAGGCTTCGTGGTCCAGGGCTCCAATGGCGAGTTTCTTTCTGACCAG
 CAGTGAGCGCCTCGAGGTGGTGAAGCGTGTGCGCCAGGCCATGCCAAGAACAGGCTCCT
 GCTAGCTGGCTCCGATGCGAGTCCACTCAAGCCACAGTGGAGATGACCGTCAGCATGGC
 CCAGGTCGGGGCTGACGCGGCCATGGTGGTGACCCCTTGCTACTATCGTGGCCGATGAG
 CAGTGCGGCCCTCATTACCACTACACCAAGGTTGCTGATCTCTCTCAATCCCTGTGGT
 GCTGTACAGTGTCCAGCCAACACAGGGCTGGACCTGCCTGTGGATGCAGTGGTCACGCT
 TTCCCAGCACCCGAATATTGTGGGCATGAAGGACAGCGGTGGTGTGTGACCAGGATTGG
 GCTGATTGTTTACAAGACCAGGAAGCAGGATTTTCAGGTGTTGGCTGGATCGGCTGGCTT
 TCTGATGGCCAGCTATGCCTTGGGAGCTGTGGGGGCGTCTGCGCCCTGGCCAATGTCT
 GGGGGCTCAGGTGTGCCAGCTGGAGCGACTGTGCTGCACGGGGCAATGGGAAGATGCCCA
 GAACTGCAGCACCGCCTCATTGAGCCAACCGTGCAGTGACCCGGCGCTTTGGGATCCC
 AGGGCTGAAGAAAATCATGGACTGGTTTGGCTACTATGGAGGCCCTGCCGCGCACCCCT
 GCAGGAGCTGAGCCCCGCTGAGGAGGAGGCACTGCGCATGGATTTCACCAGCAACGGCTG
 GCTCTGAGGGCAGGCAGGGTCCATGGCTGGCTGAGCCATCTCAGCCTCCTGCCTTGCA
 CTTGCAGCCTGAAGCGGAGAGCACAGGGGGATGAGGGTGGCAGGCAGCGGGAGCCGATA
 GAGGCTCCTTTGCCTGTGTGGTCTCCAGGCAGCCTTTCACAGGCACGCCCATGCATAT
 CTCCTATTCTAACGGCCCTGACCTCTCCCTTTTGGATCCTAACTGTGTCTCTGGTCTG
 AAGACTGGGAAGGAGCAATTTCTCAATTTATCTTTCTACTGTGGATGCTTCTACGCCC
 TGAGGCACATGAAGTCAGAAAGGAAGGGCAGAGGGGCAAGTAGGCACAGTAAGGGAATTT
 TCTTTTCTTTTTTTTTTTTTTTTGGACAGAGTTTCACTCTGTCACCCAGGCTGGAGTGC
 AATGGCATGATCTCGCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGC
 TGGGATTACAGGCGCCTGCCACCACGCCAGCTAATTTTTGTATTTTAGCAGAGATGGG
 GTTTCACCGTGTGGCCAGGCTGGTCTTGAACCTCTGACCTCAGGTGATCCAACCTGCCTC
 GGCTCCCAAAGTGCTGGGATTACAGCTGTGAGCCACTGCACCCGGCCGGGAATTTATCA
 AAGGGGGGACTACTTAGATTTGGGGCTTCAAACCTGAGTCTAGCAATGCAGCTGGAGG
 CCAGGGCTACTCTACAAACCAAGTTCTGACTCCTTCCAGGGAAGTATCAGCTTAAGAA
 ACTTGATCAGGAAAGTGACACTGGTCTTTCAAAGAGCCCTCTTTACCTCCCATCCCTGC
 CCTCTACACTGCAAGCTGCATTCCAGCCACAACGCCCTTTCTAAATCTATTTTCATTCA
 TCTCCTATTCTGGTCTGTAGCCTTGATTCCAACATTGAATGCACGGAGACAGCCAGTG
 GCTTGTGAGATTGGTAAATAATGACACCTGGTGGATAAATGTTACATTCTAGAAGACTAT
 TCTGGTACGCTAGGTCTGAAACACTAAGGAGACTTGGCCTGAGATAGGGCCATCCACTT
 GCCTACAGGCACTCTGCTTTTATTATTAATAAATAGTCACTTTGTACTATAATAAAATTT
 AACAGAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_138413 unedited <pre> GGCGGTGTTTAGGATATTTGTCAATACGCACTTCACTGTGAGGGNCGGACCGCATAA CTTCGTATAGCATACATTATACGAAGTTATGGATCAGGCCAAATCGGCCGAGCTCGA ATTTCGTGAGAGCGGATTGCGGGAGGAGGGCCAGATCCCACTGGAGATACCGAAGGAG ATACTCTT TAGTATTGGGATCCCAGAAACCACTCTATATCTGGCCAGAGGGACACTGGGTTGTGGC ATCTCTCTAGCTGCTACCCAGAAGGAACAGGGCCCCCTGGGGCCTATAGGCCTTGCC CCTGACCCCTGGGAACACCCAGCTCAGGCCTGCCCACTGGCCACAAGTCAGGGAGGC CGCAAA TTTTTAAGTAAACATTGATCATTAAATAGGGGGTTAGAAAGAGTTCAAACCTAAGTCT CACTCTGGGACATAGACCAATTGTGCTTCAGGCCTCCTGCAGAGATGCTGGGTCCCCA AGTCTGGTCTTCTGTGAGGCAGGGGCTAAGCAGGAGCTTGTCAGGAATGTGGGGGTCT GGGCC TCAGGGGAGGGGAAGAAGGTGGACATTGCGGGTATCTACCCCCCTGTGACCACCCCTTC ACTGCCACTGCATAGGTGGACTATGGGAACTGGAGGAAAATCTGCACAACTGGGCACC TTTCCCTTCCGAGGAGCTGTGGGGGGCGTCTGCGCCCCTGCCAATGGCCTGGGGGCTC AGGTATCCCAGCTGGAACCACTGGTCTTCCACGGGCATTGGGAAGAGCCAGAACTGCTAT ATCGCCTTATTGAACAAACGCTGCTTTAACCCCGCCCTTTTGGATCCCAGGCTGTAAAA AACTGGACCGGTTTGCTCATTGGAGGCTCTGGGCCCCCTCTGCAGATTGACCCCG </pre>
Restriction Sites:	Please inquire
ACCN:	NM_138413
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:	<u>NM_138413.2</u> , <u>NP_612422.2</u>
RefSeq Size:	2480 bp
RefSeq ORF:	984 bp
Locus ID:	112817
UniProt ID:	<u>Q86XE5</u>
Cytogenetics:	10q24.2

Gene Summary:

The authors of PMID:20797690 cloned this gene while searching for genes in a region of chromosome 10 linked to primary hyperoxalurea type III. They noted that even though the encoded protein has been described as a mitochondrial dihydrodipicolinate synthase-like enzyme, it shares little homology with *E. coli* dihydrodipicolinate synthase (Dhdps), particularly in the putative substrate-binding region. Moreover, neither lysine biosynthesis nor sialic acid metabolism, for which Dhdps is responsible, occurs in vertebrate mitochondria. They propose that this gene encodes mitochondrial 4-hydroxyl-2-oxoglutarate aldolase (EC 4.1.3.16), which catalyzes the final step in the metabolic pathway of hydroxyproline, releasing glyoxylate and pyruvate. This gene is predominantly expressed in the liver and kidney, and mutations in this gene are found in patients with primary hyperoxalurea type III. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Nov 2010]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).