

Product datasheet for SC127702

OGDH (NM_002541) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OGDH (NM_002541) Human Untagged Clone
Tag:	Tag Free
Symbol:	OGDH
Synonyms:	AKGDH; E1k; KGD1; OGDC; OGDH2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127702 sequence for NM_002541 edited (data generated by NextGen Sequencing)

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ATGTTTCATTTAAGGACTTGTGCTGCTAAGTTGAGGCCATTGACGGCTTCCCAGACTGTT
AAGACATTTTCAAAAACAGACCAGCAGCAGCTAGGACATTTCAACAGATTCGGTGCTAT
TCTGCACCTGTTGCTGCTGAGCCCTTCTCAGTGGGACTAGTTCGAACTATGTGGAGGAG
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GACAAGCTCGTGGAGGACCCTGGCAGTGCAGTGCCTCATCAGGGCATATCAGATACGA
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GTGGTTGTCGATTTGGTGTGTTACCGGGCAACGGCCACAACGAGATGGATGAGCCCATG
 TTCACGCAGCCGCTCATGTACAAGCAGATCCGCAAGCAGAAGCCTGTGTTACAGAAGTAC
 GCTGAGCTGCTGGTGTGCGAGGGTGTGGTCAACCAGCCTGAGTATGAGGAGGAAATTTCC
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 AAGCCCGTCTGGTATGCCGGCCGGACCCAGCAGCTGCTCCAGCCACCGGCAACAAGAAG
 ACCCACCTGACGGAGCTGCAGCGCTCCTGGACACGGCCTTCGACCTGGACGTCTTCAAG
 AACTTCTCGTAG

Clone variation with respect to NM_002541.3

2973 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002541 unedited

TGTTTCAGNNCATATTTNGTNAATNACGNAACTTCACTTATNNAGGGNCCGGCNCNCGCNA
 ATTNNCGGCACGAAGGGCTTGNAGCCGNANAAACAGGCAGTTGTGAAAAAATTCAGGA
 CAAAAATGTTTCATTTAAGGACTTGTGCTGCTAAGTTGAGGCCATTGACGGCTTCCCAGA
 CTGTTAAGACATTTTACAAAACAGACCAGCAGCAGCTAGGACATTTCAACAGATTCCGT
 GCTATTCTGCACCTGTTGCTGCTGAGCCCTTCTCAGTGGGACTAGTTCGAACTATGTGG
 AGGAGATGTACTGTGCTTGGCTGGAAAACCCAAAAGTGTACATAAGTCATGGGACATTT
 TTTTTCGCAACACGAATGCCGGAGCCCCACCGGCACTGCCTACCAGAGTCCCCTCCCC
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 ACGTGGACAAGCTCGTGGAGGACCACCTGGCAGTGCAGTCGCTCATCAGGGCATATCAGA
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 CCTCCGTGCCCGCTGACATTATCTCATCCACAGACAACTTGGGTTCTATGGCCTGGATG
 AGTCTGACCTCGACAGGTCTTCCACTTGCCACCACCCTTTCATCGNGGACAGGAATC
 AGCACTTNTCTCGGGGAGATCATCCGTCGGCTGGAGATGGCCTACTGCCAGCATATTGG
 GGTGGAGTTCATGTTTCAATGACCTGNAGCAGTGCCAGTGGGATCCGCAGAAGTTNGA
 GACCCCTGGGATCATGCANGTCACAAATGAGGAGAAACGACCCTGCTGGCCAAGCTTGT
 GCGGTCCACCCAGTTGAGGAGTTCCTACACGGAAGTGTCTCTGAGAACCCTTTGTCT
 AAAG

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002541 unedited TACCGCGCCGCAATCTANAGTCGAGTT TCATGCCACGGATATAACTTAGTTTATGGGTCAAGCCAATGCAATGCAAAGTTGTTCT GTTCTTTTTTTTTTTTTTAAACAAAATAAATAAATCAAATCTGTCCCTGTGAAGGTCA AAGTGATAAATGAGGGCAGCTGGCCCTTGCCATGGCTGGCCCTCACCCCCAGCCC CTCCTTTCCCTTTTTGACCTGCTTTGGCACAGCAAAAAAATGATGCATCAAAAAGTCT CCATTGGGTTAAAGGAAAAAAAAAAATTTGGTTGGGTGGGAGGGATTCAAAAAAGGAG GTGGAGGGTTAACAGACCAAGACAGAGCAGCCAGTGCCCGGGCGTGGCTACCTGAGCG GGGCTTCTGGCTACACACAAACTCTGTGGCTCCAGGTGCTGCCTGGGCCAGGAGGGG TGGGTGGGCATGCTTTGGGCCACACACCGCCCTGGAACCTTCCAAGGAACAGCCA AATAATGGGACACTGCAAAGACTGAAGCTGCCCTTTTTGTGCCAGTTCAGGGCCAA GGTTTTTTTTCTGGCCAGCTGCCCGGGTAATCCCTCATTTACGCCCGGGTGGG GCCCCACCAAAAACCCTCTGCCCGCCCTGGGTAGATCCGAATCCAGGCTCCCCCT AAAAATTCTAAGGGCTCAGGCTCAAAATGAAACCTTTCCTAGTTCTAAAATCCAGGGACC CTGTGCCTTGGTTGGGGACAGCCGGAACCCCCCAACAGGGCCAATTTCCAATTCCAA ATGGGTGAAACTGGTGGGAGGGTTTTTNCANATACTANACCTCCCCACAGAAATTCCT TAGAGGTTATTTTGCCTTCGGGCTGCCCGAGCGNCTGGAGAAAATGTNCAGATTATAT AAACCCGGNCCCTGGTGGCCCGGGGAATCAAATATTGTGGGGTGGACCAGTCCCTCCC TTTCGCGCTGAGGGGGTTTCTCCCCCTGTAGACGTCGTGA
Restriction Sites:	NotI-NotI
ACCN:	NM_002541
Insert Size:	4700 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:	<ol style="list-style-type: none"> 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_002541.2</u> , <u>NP_002532.2</u>
RefSeq Size:	4257 bp
RefSeq ORF:	3072 bp
Locus ID:	4967
UniProt ID:	<u>Q02218</u>
Cytogenetics:	7p13
Domains:	E1_dehydrog, transket_pyr

Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Lysine degradation, Metabolic pathways, Tryptophan metabolism
Gene Summary:	<p>This gene encodes one subunit of the 2-oxoglutarate dehydrogenase complex. This complex catalyzes the overall conversion of 2-oxoglutarate (alpha-ketoglutarate) to succinyl-CoA and CO₂ during the Krebs cycle. The protein is located in the mitochondrial matrix and uses thiamine pyrophosphate as a cofactor. A congenital deficiency in 2-oxoglutarate dehydrogenase activity is believed to lead to hypotonia, metabolic acidosis, and hyperlactatemia. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Sep 2009]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>