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Product datasheet for SC300581

OGDH (NM_001003941) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OGDH (NM_001003941) Human Untagged Clone
Tag:	Tag Free
Symbol:	OGDH
Synonyms:	AKGDH; E1k; KGD1; OGDC; OGDH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>SC300581 representing NM_001003941.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTTTCATTTAAGGACTTGTGCTGCTAAGTTGAGGCCATTGACGGCTTCCCAGACTGTTAAGACATTT
TCACAAAACAGACCAGCAGCAGCTAGGACATTTCAACAGATTCGGTGCTATTCTGCACCTGTTGCTGCT
GAGCCCTTTCTCAGTGGGACTAGTTCGAACTATGTGGAGGAGATGTACTGTGCTTGGCTGGAAAACCCC
AAAAGTGTACATAAGTCATGGGACATTTTTTTTCGCAACACGAATGCCGGAGCCCCACCGGGCACTGCC
TACCAGAGTCCCCTTCCCCTGAGCCGAGGCTCCCTGGCTGCTGTGGCCCATGCACAGTCCCTGGTAGAA
GCACAGCCCAACGTGGACAAGCTCGTGGAGGACCACCTGGCAGTGCAGTCGCTCATCAGGGCATATCAG
ATACGAGGGCACCATGTAGCACAGCTGGACCCCCTGGGGATTTTGGATGCTGATCTGGACTCCTCCGTG
CCCGCTGACATTATCTCATCCACAGACAAACTTGGGTTCTATGGCCTGGATGAGTCTGACCTCGACAAG
GTCTTCCACTTGCCCACCACCACTTTCATCGGGGGACAGGAATCAGCACTTCCTCTGCGGGAGATCATC
CGTCGGCTGGAGATGGCCTACTGCCAGCATATTGGGGTGGAGTTCATGTTCATCAATGACCTGGAGCAG
TGCCAGTGGATCCGGCAGAAGTTTGAGACCCCTGGGATCATGCAGTTCACAAATGAGGAGAAACGGACC
CTGCTGGCCAGGCTTGTGCGGTCCACCAGGTTTGAGGAGTTCCTACAGCGGAAGTGGTCCTCTGAGAAG
CGCTTTGGTCTAGAAGGCTGCGAGGTACTGATCCCTGCCCTCAAGACCATCATTGACAAGTCTAGTGAG
AATGGCGTGGACTACGTGATCATGGGCATGCCACACAGAGGGCGGCTGAACGTGCTTGCAAATGTCATC
AGGAAGGAGCTGGAACAGATCTTCTGTCAATTCGATTCAAAGCTGGAGGCAGCTGATGAGGGCTCCGGA
GATGTGAAGTACCACCTGGGCATGTATCACCGCAGGATCAATCGTGTCACCGACAGGAACATTACCTTG
TCCTTGGTGGCCAACCCTTCCCACCTTGAGGCCGCTGACCCCGTGGTGATGGGCAAGACCAAAGCCGAA
CAGTTTTACTGTGGCGACACTGAAGGGAAAAAGGTAAGGCCCAGAGAGAGGCGTGCAAGGCAGATCGTC
AAGGCCCCATGTTCCAGCATGGAGTTCCGCTCACCAACATAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

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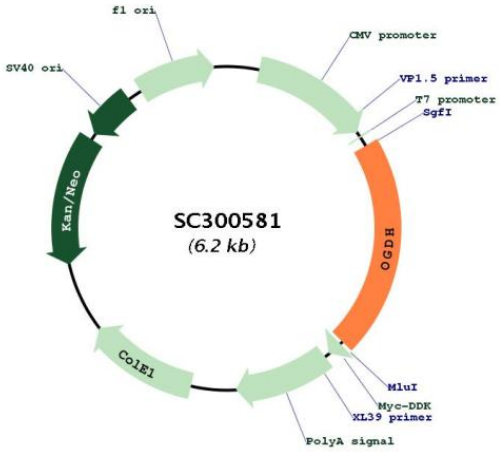
Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_001003941

Insert Size: 1284 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).

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).

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: NM_001003941.2

RefSeq Size: 1829 bp

RefSeq ORF: 1284 bp

Locus ID: 4967

UniProt ID:	Q02218
Cytogenetics:	7p13
Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Lysine degradation, Metabolic pathways, Tryptophan metabolism
MW:	48.2 kDa
Gene Summary:	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 CO(2) 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] Transcript Variant: This variant (2) uses an alternate splice site in the 3' end of coding region, compared to variant 1. Variant 2 encodes isoform 2 which has a shorter and distinct C-terminus, compared to isoform 1. Variant 2 is supported by transcriptional evidence although the protein product is predicted.