

## Product datasheet for **RR215419**

### Ogdh (NM\_001017461) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ogdh (NM\_001017461) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ogdh  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR215419 representing NM\_001017461  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGTTTCATTTAAGGACTTGTGCTGCTAAGTTAAGGCCATTGACAGCCTCCAGACTGTTAAGACATTTT  
 CACAAAACAACCAGCAGCAATTAGGACGTTTCAACAGATTCGGTGTATTCTGCACCTGTAGCTGCTGA  
 ACCATTTCTTAGTGGGACTAGTTCGAACATGTGGAGGAAATGTACTGTGCTGGTGGAGAATCCCAA  
 AGTGACATAAGTCATGGGACATTTTTTCCGAAACACCAATGCTGGAGCCCCACCGGGCACTGCCTACC  
 AGAGCCCCCTTTCCCTGAGTCAAGCTCCCTGGCTACCATGGCTCATGCACAGTCCCTGGTGAAGCACA  
 GCCTAACGTCGACAAGCTCGTGGAGGACCCTGGCGGTGCAGTCTCTCATCAGGGCGTATCAGATACGA  
 GGGCACCATGTAGCACAGCTGGACCCCCGGGATTTTGGATGCTGATCTGGACTCCTCCGTGCCCGCTG  
 ACATTATCTCATCCAGACAACTTGGTTCTATGGCTACACGAGTCTGACCTTGACAAGGTCTTCCA  
 CTTACCCACCACCCTTTCATCGGGGACAGGAGCCAGCACTTCTCTTCGGGAGATCATCCGTCCGCTG  
 GAGATGGCCTACTGCCAGCACATTGGTGTGGAGTTCATGTTCAACGATTTGGAGCAATGCCAGTGGA  
 TCCGGCAGAAGTTTGGAGCCCCGGGATCATGCAGTTCACCAATGAGGAGAAGCGGACCCCTGCTGGCCAG  
 GCTTGTACGGTCCACCAGGTTTGGAGAGTTCCTGCAGCGAAAGTGGTCTCTGAGAAGCGTTTTGGTCTG  
 GAAGGCTGTGAGGTGCTGATCCCTGCCCTCAAGACAATCATTGACATGTCAAGTGCAAATGGAGTGGACT  
 ATGTGATCATGGGGATGCCACACAGAGGACGACTGAACGTGCTAGCCAATGTGATCAGGAAGGAGCTGGA  
 GCAGATATTCTGTGAGTTGACTCGAAGCTGGAGGCAGCTGATGAGGGTTCGGGGACATGAAGTACCAC  
 CTGGGCATGTATACCGAAGGATCAACCGTGTGACCGACAGAAACATCACTCTGTCTTGGTGGCTAACC  
 CTTCCCACTTAGAGGCTGCTGACCCTGTAGTGTGGGAAAGACCAAGCTGAACAGTCTACTGTGGAGA  
 CACTGAAGGGAAAAAGGTGATGTCTATCCTGCTGCATGGGGATGCTGCCTTTGCTGGCCAGGGTATCGTG  
 TATGAGACCTTCCATCTCAGCGACCTGCCATCTATACAACCCAGGCACCGTTACAGTGGTTGTCAACA  
 ACCAGATTGGCTTACCACAGACCCTCGGATGGCCCCGCTTCTCCCTACCCCACTGATGTGGCCCGGAGT  
 GGTGAACGCCCCATTTCCATGTCAACTCAGATGACCCTGAAGCTGTCATGTATGTATGAAGGTGGCA  
 GCTGAGTGGAGAAACACCTTCCACAAGGATGTTGTTGTTGATCTGGTGTGTTATCGACGAAATGGCCACA  
 ACGAGATGGATGAACCTATGTTACACAGCCACTCATGTACAAGCAGATCCGTAAGCAGAAGCCGGTACT  
 GCAGAAGTATGCAGAATTGCTGGTATCCAGGGGGTCTCAACCAGCCCCGAATATGAGGAGGAAATCTCC



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AAGTACGATAAGATCTGTGAGGAAGCATTACCAGATCCAAGATGAGAAGATCTGCACATCAAGCACT  
 GGCTGGATTCCCCTGGCTGGCTTTTTACCCTGGATGGACAGCCCAGGAGCATGACCTGCCCTCCAC  
 TGGCTGGAGGAGGACATCTTGACCCACATTGGGAATGTGGCCAGTTCTGTACCTGTGGAGAAGTTTACC  
 ATCCATGGAGGGCTGAGCCGGATCTTGAAGACTCGCAGAGAGCTTGTGACAAACCGGACTGTGGACTGG  
 CCCTGGCAGAGTACATGGCGTTCGGATCACTCCTGAAGGAAGGCATCCATGTCCGGCTGAGTGGCCAGGA  
 CGTGGAGCGGGTACCTTCAGCCATGCCACCATGTGCTCCATGACCAGAATGTGGACAAAAGAAGACCTGC  
 ATCCCCATGAACCACCTTTGGCCTAACCCAGGCCCTTACACCGTGTGCAACAGCTCGTTGTCTGAGTATG  
 GTGTCCTGGGCTTTGAACTGGGCTTTGCCATGGCTAGCCCTAATGCTCTGGTTCTCTGGGAGGCCAGTT  
 TGGTGATTTCAACAACATGGCACAGTGCATCATTGACCAGTTCATCTGCCAGGACAGGCAAAGTGGGTG  
 CGGCAGAAATGGCATCGTCTCTGCTACCTCACGGCATGGAAGGCATGGTCCCAGCATTCTCTGCC  
 GTCCAGAGAGGTTTCTGCAGATGTGCAATGATGACCCAGATGCTCTGCCTAACCTGCAGGAGGAAAAGT  
 TGACATCAGTCAGCTCTACGACTGCAACTGGATTGTGCTCAACTGCTCCACCCCTGGCAACTTCTCCAC  
 GTGCTGCGACGACAGATCTTGTGCCCTCCGGAAGCCGTTAATCGTCTTCACTCCCAAATCCCTCTGC  
 GCCACCCTGAGGCAAGAAGTACTTGTGATGAGATGCTGCCAGGAACCCACTTCCAGCGTGTGATCCAGA  
 AGATGGACCTGCAGCTCAGAACCAGACAAAGTCAAGAGGCTTCTTCTGCACTGGCAAGTGTACTAT  
 GACCTCACCCGAGAGCGCAAAGCCAGGGACATGGCAGAGGAGGTGGCTATTACAAGGATTGAGCAGCTGT  
 CACCATTCCCCTTCGACCTCTGCTGAAAGAGGCACAGAAGTATCCCAATGCTGAGCTGGCTGGTGCCA  
 GGAAGAGCACAAGAATCAAGGCTACTATGACTATGTCAAGCCAAGACTTCGGACCACATTGACCGTGT  
 AAGCCTGTCTGGTATGCTGGCCGAGACCCAGCAGCCGCTCCAGCCACTGGCAACAAGAAGACCCACCTGA  
 CAGAGCTGCAGCGCTTTCTGGACACAGCCTTTGACCTGGACGCCTTCAAGAAATTCTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR215419 representing NM\_001017461  
 Red=Cloning site Green=Tags(s)

MFHLRTCAAKLRPLTASQTVKTF SQNKPAAIRTFQ QIRCYSAPVAAEPFLSGTSSNYVEEMYCAWLENPK  
 SVHKSWDIFFRNTNAGAPPGTAYQSPLSLSRSSLATMAHAQSLVEAQPNVDKLVEDHLAVQSLIRAYQIR  
 GHHVAQLDPLGILDADLDSSVPADIISSD KLG FYGLHESDLDKV FHLPTTTFFIGGQEPALPLREIIRRL  
 EMAYCQHIGVEFMFINDLEQCQWIRQKFETPGIMQFTNEEKRTLARLVRSTRFEEFLQRKWSSEKRFGL  
 EGCEVLIPALKTIIDMSSANGVDYVIMGMPHRGRLNVLANVIRKELEQIFCQFDSKLEAADEGSGDMKYH  
 LGMYHRRINRVTDNRNITLSLVANPSHLEAADPVVMGKTKAEQFYCGDTEGKVM SILLHGDAAFAGQGIV  
 YETFHLSDLPSYTHGTVHV VVNNQIGFTTDP RMARSSPYPTDVARV VNAPIFHVNSDDPEAVMYVCKVA  
 AEWRNTFHKDVVDLV CYRRNGHNEMDEPMFTQPLMYKQIRKQKPV LQKYAELLVSQGVVNQPEYEEEIS  
 KYDKICEEAFTRSKDEKILHIKHWLDSPWPGFFLDGQPRSMTC PSTGLEEDILTHIGNVASSVPVENFT  
 IHGGLSRILKTRRELVTNR TVDWALAEYMAFGSLLKEGIHVRLSGQDVERGTF SHRHHVLHDQNVDKRTC  
 IPMNLWPNQAPYTVCNSSLSEYGV LGFELGFAMASPNALVLEAQFGDFNMAQCIIDQFICPGQAKWV  
 RQNGIVLLLPHGMEGMGPEHSSARPERFLQMCNDPDPVLPNLQEENFDISQLYDCNWI VVNCSTPGNFFH  
 VLRQIILLPFRKPLIVF TPKSLLRHPEARTSFDEMLPGTHFQRVIPEDGPAAQNPDKV KRLLFCTGKVVY  
 DLTRERKARDMAEEVAITRIEQLSPFPFDLLLKEAQKYPNAELAWCQEEHKNQGYDYVVKPRLRTTIDRA  
 KPVVYAGRDPAAAPATGNKKTHLTELQRF LD TAFDLDAFKKFS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

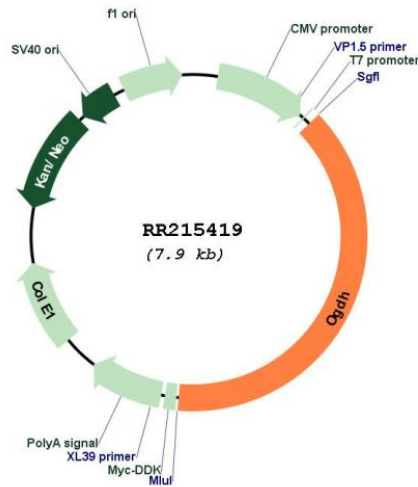
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_001017461  
 ORF Size: 3069 bp

<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>
<b>RefSeq:</b>	<a href="#">NM_001017461.1</a> , <a href="#">NP_001017461.1</a>
<b>RefSeq Size:</b>	3266 bp
<b>RefSeq ORF:</b>	3072 bp
<b>Locus ID:</b>	360975
<b>UniProt ID:</b>	<a href="#">Q5XI78</a>
<b>Cytogenetics:</b>	14q21
<b>MW:</b>	116.3 kDa
<b>Gene Summary:</b>	2-oxoglutarate dehydrogenase (E1) component of the 2-oxoglutarate dehydrogenase complex, which mediates the decarboxylation of alpha-ketoglutarate. The 2-oxoglutarate dehydrogenase complex catalyzes the overall conversion of 2-oxoglutarate to succinyl-CoA and CO(2). The 2-oxoglutarate dehydrogenase complex is mainly active in the mitochondrion. A fraction of the 2-oxoglutarate dehydrogenase complex also localizes in the nucleus and is required for lysine succinylation of histones: associates with KAT2A on chromatin and provides succinyl-CoA to histone succinyltransferase KAT2A.[UniProtKB/Swiss-Prot Function]