

## Product datasheet for **RN215419**

### Ogdh (NM\_001017461) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ogdh (NM_001017461) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Ogdh
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN215419 representing NM_001017461 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTTTCATTTAAGGACTTGTGCTGCTAAGTTAAGGCCATTGACAGCCTCCAGACTGTTAAGACATTTT  
CACAAAACAACCAGCAGCAATTAGGACGTTTCAACAGATTCGGTGTATTCTGCACCTGTAGCTGCTGA  
ACCATTTCTTAGTGGACTAGTTCGAACATGTGGAGGAAATGTACTGTGCTGGTTGGAGAATCCCAA  
AGTGATACATAAGTCATGGGACATTTTTTCCGAAACACCAATGCTGGAGCCCCACCGGGCACTGCCTACC  
AGAGCCCCCTTTCCCTGAGTCGAAGCTCCCTGGCTACCATGGCTCATGCACAGTCCCTGGTGAAGCACA  
GCCTAACGTCGACAAGCTCGTGGAGGACCACTGGCGGTGCAGTCTCTCATCAGGGCGTATCAGATACGA  
GGGCACCATGTAGCACAGCTGGACCCCCGGGGATTTGGATGCTGATCTGGACTCCTCCGTGCCCGCTG  
ACATTATCTCATCCAGACAAACTTGGTTCTATGGCTACACGAGTCTGACCTTGACAAGGTCTTCCA  
CTTACCCACCACCACTTTCATCGGGGACAGGAGCCAGCACTTCTCTTCGGGAGATCATCCGTCCGCTG  
GAGATGGCCTACTGCCAGCACATTGGTGTGGAGTTCATGTTTACGATTTGGAGCAATGCCAGTGGA  
TCCGGCAGAAGTTTGGAGCCCCGGGATCATGCAGTTCACCAATGAGGAGAAGCGGACCCCTGCTGGCCAG  
GCTTGTACGGTCCACCAGGTTTGGAGGATTCCTGCAGCGAAAGTGGTCCCTCTGAGAAGCGTTTTGGTCTG  
GAAGGCTGTGAGGTGCTGATCCCTGCCCTCAAGACAATCATTGACATGTCAAGTGCAATGGAGTGGACT  
ATGTGATCATGGGGATGCCACACAGAGGACGACTGAACGTGCTAGCCAATGTGATCAGGAAGGAGCTGGA  
GCAGATATTCTGTGAGTTTACTCGAAGCTGGAGGCAGCTGATGAGGGTTCGGGGACATGAAGTACCAC  
CTGGGCATGTATACCGAAGGATCAACCGTGTGACCGACAGAAACATCACTCTGTCTTGGTGGCTAACC  
CTTCCCCTTAGAGGCTGCTGACCCTGTAGTGTGGGAAAGACCAAGCTGAACAGTTTCTACTGTGGAGA  
CACTGAAGGGAAAAAGGTGATGTCTATCCTGCTGCATGGGGATGCTGCCTTTGCTGGCCAGGGTATCGTG  
TATGAGACCTTCCATCTCAGCGACCTGCCATCCTATACAACCCACGGCACCGTTACAGTGGTTGTCAACA  
ACCAGATTGGCTTACCACAGACCCTCGGATGGCCCCGCTTCTCCCTACCCCACTGATGTGGCCCGGAGT  
GGTGAACGCCCCATTTTCCATGTCAACTCAGATGACCCTGAAGCTGTGATGTATGTAAGGTGGCA  
GCTGAGTGGAGAAACACCTTCCACAAGGATGTTGTTGTTGATCTGGTGTGTTATCGACGAAATGGCCACA  
ACGAGATGGATGAACCTATGTTACACAGCCACTCATGTACAAGCAGATCCGTAAGCAGAAGCCGGTACT  
GCAGAAGTATGCAGAATTGCTGGTATCCCAGGGGGTCTCAACCAGCCCCGAATATGAGGAGGAAATCTCC



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AAGTACGATAAGATCTGTGAGGAAGCATTTACCAGATCCAAGATGAGAAGATCTGCACATCAAGCACT  
 GGCTGGATTCCCCTGGCTGGCTTTTTACCCTGGATGGACAGCCCAGGAGCATGACCTGCCCTCCAC  
 TGGCTGGAGGAGGACATCTTGACCCACATTGGGAATGTGGCCAGTTCTGTACCTGTGGAGAACCTTACC  
 ATCCATGGAGGGCTGAGCCGGATCTTGAAGACTCGCAGAGAGCTTGTGACAAACCGGACTGTGGACTGG  
 CCCTGGCAGAGTACATGGCGTTCGGATCACTCCTGAAGGAAGGCATCCATGTCCGGCTGAGTGGCCAGGA  
 CGTGGAGCGGGTACCTTCAGCCATGCCACCATGTGCTCCATGACCAGAATGTGGACAAAAGAACCTGC  
 ATCCCCATGAACCACCTTTGGCCTAACCCAGGCCCTTACACCGTGTGCAACAGCTCGTTGTCTGAGTATG  
 GTGTCCTGGGCTTTGAACTGGGCTTTGCCATGGCTAGCCCTAATGCTCTGGTTCTCTGGGAGGCCAGTT  
 TGGTGATTTCAACAACATGGCACAGTGCATCATTGACCAGTTCATCTGCCAGGACAGGCAAAGTGGGTG  
 CGGCAGAAATGGCATCGTCTCCTGCTACCTCACGGCATGGAAGGCATGGGTCCCGAGCATTCTCTGCC  
 GTCCAGAGAGGTTTCTGCAGATGTGCAATGATGACCCAGATGTCTGCCTAACCTGCAGGAGGAAAACCT  
 TGACATCAGTCAGCTCTACGACTGCAACTGGATTGTGTCGCAACTGCTCCACCCCTGGCAACTTCTCCAC  
 GTGCTGCGACGACAGATCTTGTGCCCTCCGGAAGCCGTTAATCGTCTTCACTCCCAAATCCCTCTGC  
 GCCACCCTGAGGCAAGAAGTACTTTGATGAGATGCTGCCAGGAACCCACTTCCAGCGTGTGATCCAGA  
 AGATGGACCTGCAGCTCAGAACCAGACAAAGTCAAGAGGCTTCTTCTGCACTGGCAAGTGTACTAT  
 GACCTCACCCGAGAGCGCAAAGCCAGGGACATGGCAGAGGAGGTGGCTATTACAAGGATTGAGCAGCTGT  
 CACCATTCCCCTTCGACCTCCTGCTGAAAGAGGACAGAAAGTATCCCAATGCTGAGCTGGCTGGTGCCA  
 GGAAGAGCACAAGAATCAAGGCTACTATGACTATGTCAAGCCAAGACTTCGGACCACATTGACCGTGT  
 AAGCCTGTCTGGTATGCTGGCCGAGACCCAGCCGCTCCAGCCACTGGCAACAAGAAGACCCACCTGA  
 CAGAGCTGCAGCGCTTTCTGGACACAGCCTTTGACCTGGACGCCTTCAAGAAATTCTCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAAGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_001017461
- Insert Size:** 3072 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:**
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\\_001017461.1](#), [NP\\_001017461.1](#)
- RefSeq Size:** 3266 bp
- RefSeq ORF:** 3072 bp
- Locus ID:** 360975

UniProt ID: [Q5XI78](#)

Cytogenetics: 14q21

**Gene Summary:** 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<sub>2</sub>. 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]