

## Product datasheet for RC218416

### HAO2 (NM\_001005783) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HAO2 (NM_001005783) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HAO2
Synonyms:	GIG16; HAOX2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218416 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCTTGGTGTGTCTGACAGACTTTTCAGGCCATGCGCGAGAGCAGCTGTCTAAGTCAACTCGGGATT  
TTATTGAAGGTGGAGCAGATGACAGCATCACGCGGGATGACAACATTGCAGCATTTAAAAGAATTCGCCCT  
CCGTCCCGGTACCTGAGAGATGTGTCTGAGGTGGACACCAGAACCACAATCCAAGGGGAGGAGATCAGT  
GCCCTATTTGTATCGCACCCACAGGGTCCACTGCCTTGTCTGGCCTGATGGGAAATGAGCACAGCAA  
GAGCTGCCAAGCGGCTGGTATCTGCTACATCACCAGCACATTTGCCAGCTGTAGCCTTGAAGACATTGT  
CATTGCAGCTCCCGAAGGCTCCGATGGTTCCAACCTATGTGCATCCAGACCTGCAGCTGAACAAACAG  
TTGATCCAGAGGGTAGAATCCCTAGGTTTCAAAGCTTTGGTAATAACTTTGGATACACCTGTATGTGGCA  
ACAGGCGACATGACATTCGAAACCAGTTGAGGAGGAACCTAACACTAACAGATCTTCAATCACCTAAAAA  
GGGAAATGCAATACCTTATTTCCAGATGACTCCTATCAGCACTTCTCTGCTGGAATGATCTCTCCTGG  
TTTCAGAGCATAACTCGATTGCCATCATCCTGAAAGGGATTTTGACAAAAGAGGATGCAGAGTTAGCTG  
TGAAGCACAATGTCCAGGGTATCATTGTTTCAACCATGGTGGGAGGCAGCTTGATGAGGTTCTTGCTTC  
AATTGATGCTTTGACAGAAGTGGTGGCTGCTGTAAGGGGAAAAATTGAAGTCTACCTGGATGGCGGGGTC  
CGAAGTGGCAATGATGTCTGAAGGCTCTGGCCCTTGGAGCTAAGTGCAATTTTTCTGGGAGACCAATCC  
TATGGGGCCTTGCTGCAAGGGTGAACATGGTGTTAAGGAAGTTTTGAACATTTAAACAAATGAGTTCCA  
CACTTCCATGGCCCTTACAGGCTGCCGGTCCGGTGGCTGAGATCAATCGAACTTGGTCCAGTTTTCCAGG  
CTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC218416 protein sequence  
Red=Cloning site Green=Tags(s)

MSLVCLTDFQAHAREQLSKSTRDFIEGGADDSITRDDNIAAFKRIRLRPRYL RDVSEVDTRTTIQGEEIS  
 APICIAPTGFHCLVWPDGEMSTARAAQAAGICYITSTFASCLEDIVIAAPEGLRWFQLYVHPDLQLNKQ  
 LIQRVESLGFKALVITLDTVPVCGNRRHDIRNQLRRNLTLTDLQSPKKGNAIPYFQMTPISTLCWNDLSW  
 FQSIITRLPIILKGILTKEDAELAVKHNVQGIIVSNHGGRRQLDEVLASIDALTEVVAAVKGIIEVYLDGGV  
 RTGNDVLRKALALGAKCIFLGRPILWGLACKGEHGVKEVLNILTNEFHSTSMALTGCRSVAEINRNLVQFSR  
 L

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6438\\_a10.zip](https://cdn.origene.com/chromatograms/mk6438_a10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



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

**ACCN:** NM\_001005783

**ORF Size:** 1053 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001005783.1](#), [NP\\_001005783.1](#)

**RefSeq Size:** 1708 bp

**RefSeq ORF:** 1095 bp

**Locus ID:** 51179

**UniProt ID:** [Q9NYQ3](#)

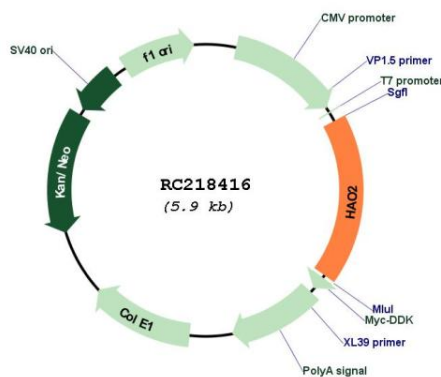
**Cytogenetics:** 1p12

**Protein Pathways:** Glyoxylate and dicarboxylate metabolism, Metabolic pathways

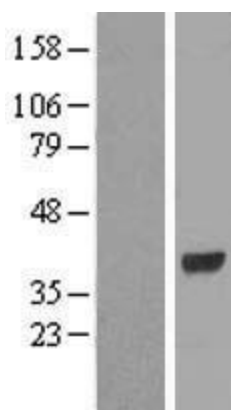
**MW:** 38.8 kDa

**Gene Summary:** This gene is one of three related genes that have 2-hydroxyacid oxidase activity. The encoded protein localizes to the peroxisome has the highest activity toward the substrate 2-hydroxypalmitate. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

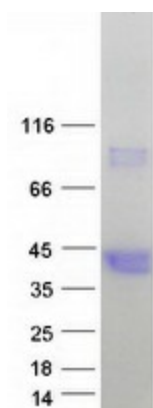
### Product images:



Circular map for RC218416



Western blot validation of overexpression lysate (Cat# [LY423655]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218416 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HAO2 protein (Cat# [TP318416]). The protein was produced from HEK293T cells transfected with HAO2 cDNA clone (Cat# RC218416) using MegaTran 2.0 (Cat# [TT210002]).