

Product datasheet for RC205051

HAO2 (NM_016527) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HAO2 (NM_016527) 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:	>RC205051 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCTTGGTGTGTCTGACAGACTTTTCAGGCCATGCGCGAGAGCAGCTGTCTAAGTCAACTCGGGATT
TTATTGAAGGTGGAGCAGATGACAGCATCACGCGGGATGACAACATTGCAGCATTTAAAAGAATTCGCCCT
CCGTCCCGGTACCTGAGAGATGTGTCTGAGGTGGACACCAGAACCACAATCCAAGGGGAGGAGATCAGT
GCCCTATTTGTATCGCACCCACAGGGTCCACTGCCTTGTCTGGCCTGATGGGAAATGAGCACAGCAA
GAGCTGCCAAGCGGCTGGTATCTGCTACATCACCAGCACATTTGCCAGCTGTAGCCTTGAAGACATTGT
CATTGCAGCTCCCGAAGGCTCCGATGGTTCCAACCTATGTGCATCCAGACCTGCAGCTGAACAAACAG
TTGATCCAGAGGGTAGAATCCCTAGGTTTCAAAGCTTTGGTAATAACTTTGGATACACCTGTATGTGGCA
ACAGGCGACATGACATTCGAAACCAGTTGAGGAGGAACCTAACACTAACAGATCTTCAATCACCTAAAAA
GGGAAATGCAATACCTTATTTCCAGATGACTCCTATCAGCACTTCTCTGCTGGAATGATCTCTCCTGG
TTTCAGAGCATAACTCGATTGCCCATCATCCTGAAAGGGATTTTGACAAAAGAGGATGCAGAGTTAGCTG
TGAAGCACAATGTCCAGGGTATCATTGTTTCAACCATGGTGGGAGGCAGCTTGATGAGGTTCTTGCTTC
AATTGATGCTTTGACAGAAGTGGTGGCTGCTGTAAGGGGAAAATTGAAGTCTACCTGGATGGCGGGGTC
CGAAGTGGCAATGATGTCTGAAGGCTCTGGCCCTTGGAGCTAAGTGCAATTTTTCTGGGAGACCAATCC
TATGGGGCCTTGCTGCAAGGGTGAACATGGTGTAAAGGAATTTGAACATTTAAACAAATGAGTTCCA
CACTTCCATGGCCCTTACAGGCTGCCGGTGGTGGCTGAGATCAATCGAACTTGGTCCAGTTTTCCAGG
CTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC205051 protein sequence
Red=Cloning site Green=Tags(s)

MSLVCLTDFQAHAREQLSKSTRDFIEGGADDSITRDDNIAAFKRIRLRPRYL RDVSEVDTRTTIQGEEIS
 APICIAPTGFHCLVWPDGEMSTARAAQAAGICYITSTFASCLEDIVIAAPEGLRWFQLYVHPDLQNKQ
 LIQRVESLGFKALVITLDTVPVCGNRRHDIRNQLRRNLTLDLQSPKKGNAIPYFQMTPISTSLCWNDSLW
 FQSIITRLPIILKGILTKEDAELAVKHNVQGIIVSNHGGRRQLDEVLASIDALTEVVAAVKGIIEVYLDGGV
 RTGNDV LKALALGAKCIFLGRPILWGLACKGEHGVKEVLNILTNEFHSTSMALTGCRSVAEINRNLVQFSR
 L

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: 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_016527

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_016527.4](#)

RefSeq Size: 1488 bp

RefSeq ORF: 1056 bp

Locus ID: 51179

UniProt ID: [Q9NYQ3](#)

Cytogenetics: 1p12

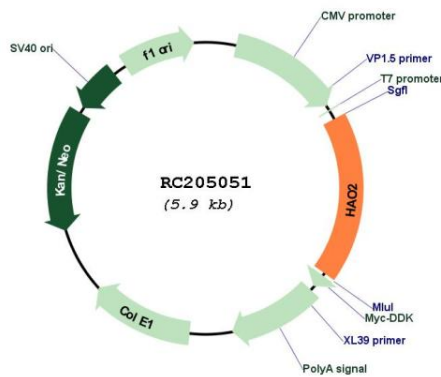
Domains: FMN_dh

Protein Pathways: Glyoxylate and dicarboxylate metabolism, Metabolic pathways

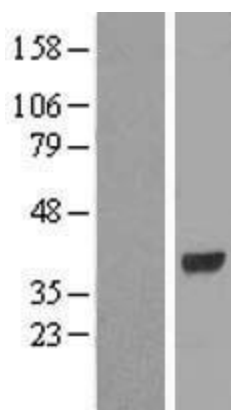
MW: 38.8 kDa

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]

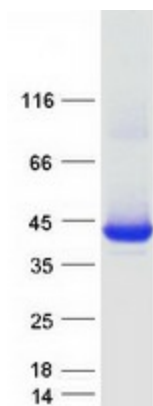
Product images:



Circular map for RC205051



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# [TP305051]). The protein was produced from HEK293T cells transfected with HAO2 cDNA clone (Cat# RC205051) using MegaTran 2.0 (Cat# [TT210002]).