

## Product datasheet for **RG206273**

### HAAO (NM\_012205) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** HAAO (NM\_012205) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** HAAO  
**Synonyms:** 3-HAO; h3HAO; HAO; VCRL1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG206273 representing NM\_012205  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCGCCGCTGGGAGTGAGGGCCTGGGTGAAGGAGAACCGGGCTCCTTCCAGCCCCGGTCTGCA  
ACAAGCTCATGCACCAGGAGCAGCTCAAAGTCATGTTTCATCGGAGGCCCAACACCAGGAAGGACTATCA  
CATCGAAGAGGGTGAAGAGGTATTTACCAGCTGGAGGGAGACATGGTTCTCCGAGTCTGGAGCAAGGG  
AAACACCGGGATGTGGTCATTCCGCAGGGAGAGATATTCCTCCTGCCTGCCAGGGTGCCCACTCACCAC  
AGAGGTTTGCCAAACACCGTGGGGCTGGTGGTTGAGCGAAGCGGCTGGAGACCGAGCTAGATGGGCTCAG  
GTACTATGTGGGCGACACCATGGACGTTCTGTTGAGAAGTGGTTCTACTGCAAGGACCTCGGCACGCAG  
TTGGCCCCATCATCCAGGAGTTCCTCAGCTCTGAGCAGTACAGAACAGGAAAGCCATCCCTGACCAGC  
TGCTCAAGGAGCCACCATTCCTCTAAGCACACGATCCATCATGGAGCCCATGTCCCTGGATGCCTGGCT  
GGACAGCCACCACAGGGAGCTGCAGGCAGGCACACCACTCAGCCTGTTTGGGGACACCTATGAGACCCAG  
GTGATCGCTATGGGCAAGGCAGCAGCGAAGGCCTGAGACAGAATGTGGACGTGTGGCTGTGGCAGCTGG  
AGGGCTCCTCGGTGGTGACAATGGGGGACGGCGCCTGAGCCTGGCCCTGATGACAGCCTCCTGGTGCT  
AGCTGGGACCTCGTATGCCTGGGAGCGAACACAAGGCTCTGTGGCCCTGTCTGTGACCCAGGACCCCTGCC  
TGCAAGAAGCCCTGGGG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >RG206273 representing NM\_012205  
 Red=Cloning site Green=Tags(s)

MERRLGVRAWVKENRGSFQPPVCNKLHQEQLKVMFIGGPNTRKDYHIEEGEEVFYQLEGDMVLRVLEQG  
 KHRDVVIRQGEIFLLPARVPHSPQRFANTVGLVVERRRLETEL DGLRYYVGD TMDVLF EKWFYCKDLGTQ  
 LAP I IQEFFSSEQYRTGKPIPDQLLKEPPFPLSTRSIMEPMSLDAWLDSHHRELQAGTPLSLFGDTYETQ  
 VIAYGQGSSEGLRQNV DVWLWQLEGSSVVTMGRRRLSLAPDSSLVLVAGTSYAWERTQGSVALSVTQDPA  
 CKKPLG

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_012205

**ORF Size:** 858 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\\_012205.1](#), [NP\\_036337.1](#)

**RefSeq Size:** 1247 bp

**RefSeq ORF:** 861 bp

**Locus ID:** 23498

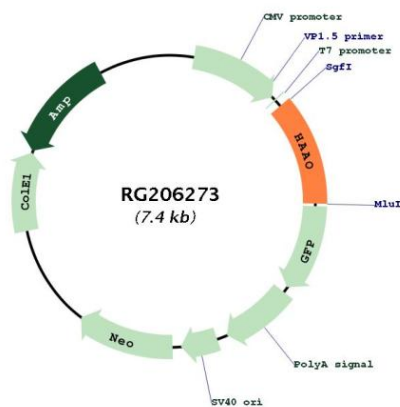
**UniProt ID:** [P46952](#)

**Cytogenetics:** 2p21

**Protein Pathways:** Metabolic pathways, Tryptophan metabolism

**Gene Summary:** 3-Hydroxyanthranilate 3,4-dioxygenase is a monomeric cytosolic protein belonging to the family of intramolecular dioxygenases containing nonheme ferrous iron. It is widely distributed in peripheral organs, such as liver and kidney, and is also present in low amounts in the central nervous system. HAAO catalyzes the synthesis of quinolinic acid (QUIN) from 3-hydroxyanthranilic acid. QUIN is an excitotoxin whose toxicity is mediated by its ability to activate glutamate N-methyl-D-aspartate receptors. Increased cerebral levels of QUIN may participate in the pathogenesis of neurologic and inflammatory disorders. HAAO has been suggested to play a role in disorders associated with altered tissue levels of QUIN. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG206273