

Product datasheet for **RG201777**

Heme oxygenase 2 (HMOX2) (NM_002134) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Heme oxygenase 2 (HMOX2) (NM_002134) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Heme oxygenase 2
Synonyms:	HO-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201777 representing NM_002134 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCAGCGGAAGTGAAACCTCAGAGGGGTAGACGAGTCAGAAAAAAGAACTCTGGGGCCCTAGAAA
AGGAGAACCAAATGAGAATGGCTGACCTCTCGGAGCTCCTGAAGGAAGGGACCAAGGAAGCACACGACCG
GGCAGAAAACACCCAGTTTGTCAAGGACTTCTTGAAAGGCAACATTAAGAAGGAGCTGTTTAAGCTGGCC
ACCACGGCACTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAGCGCAACAAGGACCATCCAGCCT
TTGCCCTTTGTACTTCCCATGGAGCTGCACCGAAGGAGGCGCTGACCAAGGACATGGAGTATTTCTT
TGGTGAAGAACTGGGAGGAGCAGGTGCAGTGCCCAAGGCTGCCAGAAAGTACGTGGAGCGGATCCACTAC
ATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCCATGCATACACCCGCTACATGGGGATCTCTCGGGG
GCCAGGTGCTGAAGAAGGTGGCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGGACCCAGTTCTA
CCTGTTTGAGAAATGTGGACAATGCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAACGCCCTGGAC
CTGAACATGAAGACCAAGAGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAGTATAACATGCAGATAT
TCAATGAACTGGACCAGGCCGCTCCACTGGCCAGAGAGACCTTGGAGGATGGGTTCCCTGTACACGA
TGGGAAAGGAGACATGCGTAAATGCCCTTCTACGCTGCTGAACAAGACAAGGTGCCCTGGAGGGCAGC
AGCTGTCCCTCCGAACAGCTATGGCTGTGCTGAGGAAGCCAGCCTCCAGTTCATCCTGGCCGCTGGTG
TGCCCTAGCTGCTGGACTCTTGGCCTGGTACTACATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG201777 representing NM_002134
 Red=Cloning site Green=Tags(s)

MSAEVETSEGVDSEKKNNGALEKENQMRMADLSELLKEGTKEAHDRANTQFVKDFLKGNIKKELFKLA
 TTALYFTYSALEEMERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERIHY
 IGQNEPELLVAHAYTRYMGDLGGQVLKKVAQRALKLPSTGEGTQFYL FENVDNAQQFKQLYRARMNALD
 LNMKTKERIVEEANKAFEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGDMRKCPFYAAEQDKGALEGS
 SCPFRTAMAVLRKPSLQFILAAGVALAAGLLAWYYM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002134

ORF Size: 948 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_002134.4](#)

RefSeq Size: 1636 bp

RefSeq ORF: 951 bp

Locus ID: 3163

UniProt ID: [P30519](#)

Cytogenetics: 16p13.3

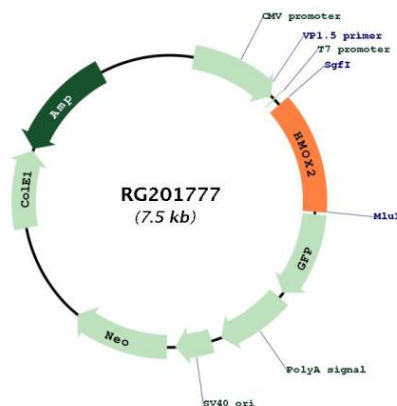
Domains: Heme_oxygenase

Protein Families: Transmembrane

Protein Pathways: Porphyrin and chlorophyll metabolism

Gene Summary: Heme oxygenase, an essential enzyme in heme catabolism, cleaves heme to form biliverdin, which is subsequently converted to bilirubin by biliverdin reductase, and carbon monoxide, a putative neurotransmitter. Heme oxygenase activity is induced by its substrate heme and by various nonheme substances. Heme oxygenase occurs as 2 isozymes, an inducible heme oxygenase-1 and a constitutive heme oxygenase-2. HMOX1 and HMOX2 belong to the heme oxygenase family. Several alternatively spliced transcript variants encoding three different isoforms have been found for this gene. [provided by RefSeq, Oct 2013]

Product images:



Circular map for RG201777