

Product datasheet for **RG237781**

Heme oxygenase 2 (HMOX2) (NM_001286267) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Heme oxygenase 2 (HMOX2) (NM_001286267) 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:	>RG237781 representing NM_001286267. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGTCTCGTCTGTTGCCAGGCTGGAGTGCAGTGGATCAGTCTAGCTCATTGCAGCCTCCACCTC
CTGGGTTCAAGAGATTCTCCTGCCTCAGCCTCCTGTGTAGCTGGGATTACAGGACCAGAGGAGCGAGAG
CAGCAAGAACCACCCAGCAGCAATGTCAGCGGAAGTGGAAACCTCAGAGGGGGTAGACGAGTCAGAA
AAAAAGAACTCTGGGGCCCTAGAAAAGGAGAACCAAATGAGAATGGCTGACCTCTCGGAGCTCCTGAAG
GAAGGGACCAAGGAAGCACACGACCGGGCAGAAAACCCAGTTTGTCAAGGACTTCTTGAAGGCAAC
ATTAAGAAGGAGCTGTTAAGCTGGCCACCACGGCACTTTACTTCACATACTCAGCCCTCGAGGAGGAA
ATGGAGCGCAACAAGGACCATCCAGCCTTTGCCCTTTGTAATCCCATGGAGCTGCACCGGAAGGAG
GCGCTGACCAAGGACATGGAGTATTTCTTTGGTAAAACCTGGGAGGAGCAGGTGCAGTGCCCAAGGCT
GCCCAGAAGTACGTGGAGCGGATCCACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCCATGCA
TACACCGCTACATGGGGATCTCTCGGGGGCCAGGTGCTGAAGAAGGTGGCCAGCGAGCACTGAAA
CTCCCCAGCACAGGGGAAGGGACCCAGTTCTACCTGTTTGAAGTGTGGACAATGCCAGCAGTTCAAG
CAGCTCTACCGGGCCAGGATGAACGCCCTGGACCTGAACATGAAGACCAAGAGAGGATCGTGGAGGAG
GCCAACAAGGCTTTTGAATATAACATGCAGATATCAATGAACTGGACCAGGCCGGCTCCACACTGGCC
AGAGAGACCTTGGAGGATGGGTTCCCTGTACACGATGGGAAAGGAGACATGCGTAAATGCCCTTTCTAC
GCTGCTGAACAAGACAAAGGTGCCCTGGAGGGCAGCAGCTGTCCCTTCCGAACAGCTATGGCTGTGCTG
AGGAAGCCAGCCTCCAGTTCATCCTGGCCGCTGGTGTGGCCCTAGCTGCTGGACTCTTGGCCTGGTAC
TACATG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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Protein Sequence: >Peptide sequence encoded by RG237781
 Blue=ORF Red=Cloning site Green=Tag(s)

MESRSVAQAGVQWISLAHCSLHLLGSRDSPASASCVAGITGPEEREQQEPHPAAMSAEVETSEGVDSE
 KKNSGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLATTALYFTYSALEEE
 MERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERIHYIGQNEPELLVAHA
 YTRYMGDLSGGQVLKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMNALDLNMKTKERIVEE
 ANKAFEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGMRCPFYAAEQDKGALEGSSCPFR TAMAVL
 RKPSLQFILAAGVALAAGLLAWYYM
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001286267

ORF Size: 1110 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](#)

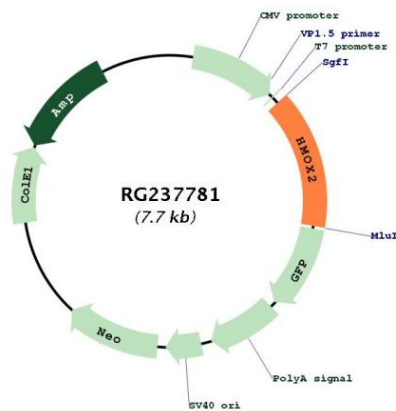
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

RefSeq: [NM_001286267.1](#), [NP_001273196.1](#)

RefSeq Size: 1875 bp

RefSeq ORF:	1113 bp
Locus ID:	3163
UniProt ID:	P30519
Cytogenetics:	16p13.3
Protein Families:	Transmembrane
Protein Pathways:	Porphyrin and chlorophyll metabolism
MW:	42.1 kDa
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 RG237781