

## Product datasheet for **RG237403**

### Heme oxygenase 2 (HMOX2) (NM\_001286270) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Heme oxygenase 2 (HMOX2) (NM_001286270) 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:	>RG237403 representing NM_001286270. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCAGCGGAAGTGAAACCTCAGAGGGGGTAGACGAGTCAGAAAAAAGAAGCTCTGGGGCCCTAGAA
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CGGGCAGAAAACACCCAGTTTGTCAAGGACTTCTTGAAGGCAACATTAAGAAGGAGCTGTTTAAGCTG
GCCACCACGGCACTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAGCGCAACAAGGACCATCCA
GCCTTTGCCCTTTGTACTTCCCATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGGACATGGAGTAT
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CACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCATGCATACACCCGCTACATGGGGGATCTC
TCGGGGGGCCAGGTGCTGAAGAAGTGGCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGGACC
CAGTTCTACCTGTTTGAAGTGTGGACAATGCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAAC
GCCCTGGACCTGAACATGAAGACCAAGAGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAAGTATAAC
ATGCAGATATTCAATGAAGTGGACCAAGGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAAGTATAAC
CCTGTACACGATGGGAAAGGAGACATGCGTAAATGCCCTTTCTACGCTGCTGAACAAGACAAGGTGCC
CTGGAGGGCAGCAGCTGTCCCTCCGAACAGCTATGGCTGTGCTGAGGAAGCCAGCCTCCAGTTTCATC
CTGGCCGCTGGTGTGCCCTAGCTGGACTTTGGCCTGGTACTACATG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



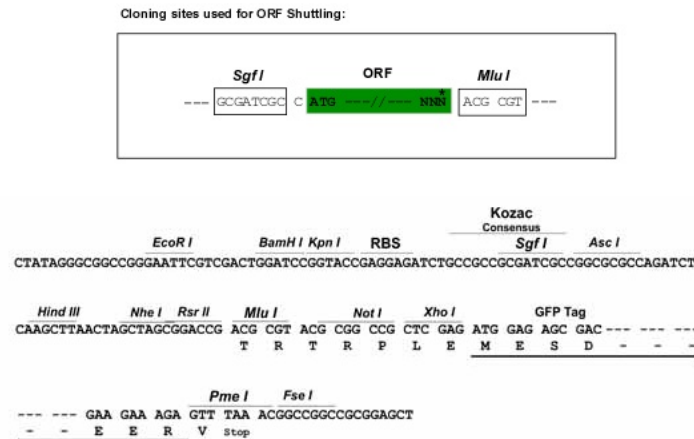
[View online »](#)

**Protein Sequence:** >Peptide sequence encoded by RG237403  
 Blue=ORF Red=Cloning site Green=Tag(s)

MSAEVETSEGVDSEKKNNGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKL  
 ATTALYFTYSALEEMERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERI  
 HYIQNEPELLVAHAYTRYMGDLGGQVLKKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMN  
 ALDLNMKTKERIVEEANKAFEYNNQIFNELDQAGSTLARETLEDGFVHDGKGDMRKCPFYAAEQDKGA  
 LEGSSCFRTAMAVLRKPSLQFILAAGVALAAGLLAWYYM  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001286270

**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).

**RefSeq:** [NM\\_001286270.1](#), [NP\\_001273199.1](#)

**RefSeq Size:** 2152 bp

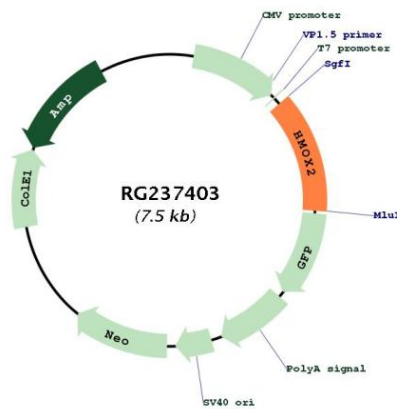
**RefSeq ORF:** 951 bp

**Locus ID:** 3163  
**UniProt ID:** [P30519](#)  
**Cytogenetics:** 16p13.3  
**Protein Families:** Transmembrane  
**Protein Pathways:** Porphyrin and chlorophyll metabolism

**MW:** 36 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 RG237403