

Product datasheet for **RG237402**

Heme oxygenase 2 (HMOX2) (NM_001286269) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Heme oxygenase 2 (HMOX2) (NM_001286269) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HMOX2
Synonyms:	HO-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237402 representing NM_001286269. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGTCAGCGGAAGTGAAACCTCAGAGGGGGTAGACGAGTCAGAAAAAAGAACTCTGGGGCCCTAGAA
AAGGAGAACCAAATGAGAATGGCTGACCTCTCGGAGCTCCTGAAGGAAGGGACCAAGGAAGCACACGAC
CGGGCAGAAAACACCCAGTTTGTCAAGGACTTCTTGAAGGCAACATTAAGAAGGAGCTGTTTAAGCTG
GCCACCACGGCACTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAGCGCAACAAGGACCATCCA
GCCTTTGCCCTTTGTACTTCCCATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGGACATGGAGTAT
TTCTTTGGTGAAAACCTGGGAGGAGCAGGTGCAGTGCCCAAGGCTGCCCAAGAAGTACGTGGAGCGGATC
CACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCATGCATACACCCGCTACATGGGGGATCTC
TCGGGGGGCCAGGTGCTGAAGAAGTGGCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGGACC
CAGTTCTACCTGTTTGAAGTGTGGACAATGCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAAC
GCCCTGGACCTGAACATGAAGACCAAAGAGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAAGTATAAC
ATGCAGATATTCAATGAAGTGGACCAAGGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAAGTATAAC
CCTGTACACGATGGGAAAGGAGACATGCGTAAATGCCCTTTCTACGCTGCTGAACAAGACAAGGTGCC
CTGGAGGGCAGCAGCTGTCCCTCCGAACAGCTATGGCTGTGCTGAGGAAGCCAGCCTCCAGTTTCATC
CTGGCCGCTGGTGTGGCCCTAGCTGGACTTTGGCCTGGTACTACATG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



[View online »](#)

Protein Sequence: >Peptide sequence encoded by RG237402
 Blue=ORF Red=Cloning site Green=Tag(s)

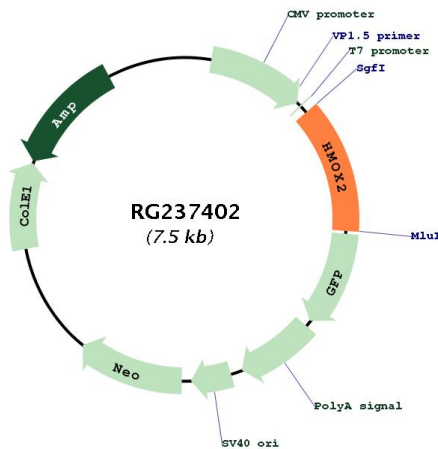
MSAEVETSEGVDSEKKNNGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKL
 ATTALYFTYSALAEEMERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERI
 HYIQNEPELLVAHAYTRYMGDLGGQVLKKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMN
 ALDLNMKTKERIVEEANKAFEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGDMRKCPFYAAEQDKGA
 LEGSSCFRTAMAVLRKPSLQFILAAGVALAAGLLAWYYM
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001286269

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_001286269.1 , NP_001273198.1
RefSeq Size:	1853 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]