

Product datasheet for **RG200463**

Heme Oxygenase 1 (HMOX1) (NM_002133) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Heme Oxygenase 1 (HMOX1) (NM_002133) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Heme Oxygenase 1
Synonyms:	bK286B10; HMOX1D; HO-1; HSP32
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200463 representing NM_002133 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCGTCCGCAACCCGACAGCATGCCCCAGGATTTGTCAGAGGCCCTGAAGGAGGCCACCAAGGAGG
TGCACACCCAGGCAGAGAATGCTGAGTTCATGAGGAACTTTCAGAAGGGCCAGGTGACCCGAGACGGCTT
CAAGCTGGTGATGGCCTCCCTGTACCACATCTATGTGGCCCTGGAGGAGGAGATTGAGCGCAACAAGGAG
AGCCCAGTCTTCGCCCTGTCTACTTCCCAGAAGAGCTGCACCGCAAGGCTGCCCTGGAGCAGGACCTGG
CCTTCTGGTACGGGCCCGCTGGCAGGAGGTCATCCCCTACACACCAGCCATGCAGCACTATGTGAAGCG
GCTCCACGAGGTGGGGCGCACAGAGCCCGAGCTGCTGGTGGCCACGCCTACACCCGCTACCTGGGTGAC
CTGTCTGGGGCCAGGTGCTCAAAAAGATTGCCAGAAAAGCCCTGGACCTGCCAGCTCTGGCGAGGGCC
TGGCCTTCTTACCTTCCCAACATTGCCAGTGCCACCAAGTTCAAGCAGCTCTACCGCTCCCGCATGAA
CTCCCTGGAGATGACTCCCGCAGTCAGGCAGAGGGTGTAGAAGAGGCCAAGACTGCGTTCTGTCAAC
ATCCAGCTCTTTGAGGAGTTGCAGGAGCTGCTGACCCATGACACCAAGGACCAGAGCCCCACAGGGGCAC
CAGGGCTTCGCCAGCGGGCCAGCAACAAAGTGAAGATTCTGCCCCGTGGAGACTCCCAGAGGGAAGCC
CCCCTCAACACCCGCTCCCAGGCTCCGCTTCTCCGATGGGTCTTACACTCAGCTTTCTGGTGGCGACA
GTTGCTGTAGGGCTTTATGCCATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200463 representing NM_002133
 Red=Cloning site Green=Tags(s)

MERPQPDSMPQDLSEALKEATKEVHTQAENAEFMRNFQKGQVTRDGFKLVMASLYHIYVALEEEIERNKE
 SPVVFAPVYFPEELHRKAALQDLAFWYGPWRQEVIPYTPAMQHYVKRLHEVGRTEPELLVAHAYTRYLGD
 LSGGQVLKkiaQKALDLPSSGEGLAFFTFPNIASATKFKQLYRSRMSLEMPAVRQRVIEEAKTAFLLN
 IQLFEELQELLTHDTKDQSPSRAPGLRQRASNKVDQSAVETPRGKPLNTRSQAPLLRWVLTLSFLVAT
 VAVGLYAM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002133

ORF Size: 864 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_002133.1](#), [NP_002124.1](#)

RefSeq Size: 1550 bp

RefSeq ORF: 867 bp

Locus ID: 3162

UniProt ID: [P09601](#)

Cytogenetics: 22q12.3

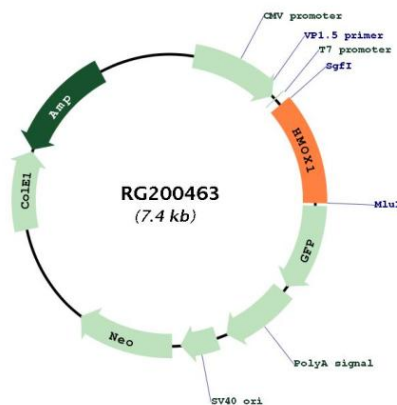
Domains: Heme_oxygenase

Protein Families: Druggable Genome, 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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200463