

Product datasheet for RC237781

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:	Myc-DDK
Symbol:	HMOX2
Synonyms:	HO-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237781 representing NM_001286267 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTCTCGTCTGTTGCCAGGCTGGAGTGCAGTGGATCAGTCTAGCTCATTGCAGCCTCCACCTCC
TGGTTCAAGAGATTCTCTGCCTCAGCCTCCTGTGTAGCTGGGATTACAGGACCAGAGGAGCGAGAGCA
GCAAGAACCACACCCAGCAGCAATGTCAGCGGAAGTGGAAACCTCAGAGGGGGTAGACGAGTCAGAAAAA
AAGAACTCTGGGGCCCTAGAAAAGGAGAACCAATGAGAATGGCTGACCTCTCGGAGCTCCTGAAGGAAG
GGACCAAGGAAGCACACGACCGGGCAGAAAACCCAGTTTGTCAAGGACTTCTTAAAGGCAACATTAA
GAAGGAGCTGTTAAGCTGGCCACCACGGCACTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAG
CGCAACAAGGACCATCCAGCCTTTGCCCTTTGTACTTCCCCATGGAGCTGCACCGGAAGGAGGCGCTGA
CCAAGGACATGGAGTATTTCTTTGGTGAAGACTGGGAGGAGCAGGTGCAGTGCCCCAAGGCTGCCAGAA
GTACGTGGAGCGGATCCACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCCATGCATACACCCGC
TACATGGGGGATCTCTCGGGGGCCAGGTGCTGAAGAAGGTGGCCAGCAGCACTGAAACTCCCCAGCA
CAGGGGAAGGACCCAGTTCTACCTGTTTGAAGAATGTGGACAATGCCAGCAGTTCAAGCAGCTTACCCG
GGCCAGGATGAACGCCCTGGACCTGAACATGAAGACCAAAGAGAGGATCGTGGAGGAGCCAAACAAGGCT
TTTGAGTATAACATGCAGATATTCAATGAACTGGACCAGCCGGCTCCACACTGGCCAGAGAGACCTTGG
AGGATGGGTTCCCTGTACACGATGGGAAAGGAGACATGCGTAAATGCCCTTTCTACGCTGCTGAACAAGA
CAAAGGTGCCCTGGAGGGCAGCAGCTGTCCCTCCGAACAGCTATGGCTGTGCTGAGGAAGCCAGCCTC
CAGTTCATCTGGCCGCTGGTGTGGCCCTAGCTGCTGGACTCTTGGCCTGGTACTACATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC237781 representing NM_001286267
 Red=Cloning site Green=Tags(s)

MESRSVAQAGVQWISLAHCSLHLLGSRDSPASASCVAGITGPEEREQQEPHPAAMS AEVETSEGVDSEK
 KNSGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLATTALYFTYSALEEME
 RNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERIHYIGQNEPELLVAHAYTR
 YMGDLSGGQVLKKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMNALDLNMKTKERIVEEANKA
 FEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGMRRKCPFYAAEQDKGALEGSSCPFR TAMAVLRKPSL
 QFILAAGVALAAGLLAWYYM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

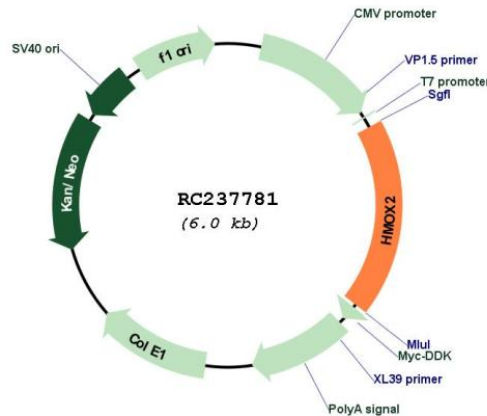
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



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).
Reconstitution Method:	<ol style="list-style-type: none">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_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]