

Product datasheet for MR223322

Hmox2 (NM_001136066) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hmox2 (NM_001136066) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hmox2
Synonyms:	HO-2; HO2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223322 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTTCAGAGGTGGAGACCTCGGAGGGGTAGATGAGTCAGAGAAGAAGTCTATGGCACCAGAAAAGG
AAAACCATACAAAATGGCAGACCTTTCTGAGCTCCTGAAGGAAGGGACCAAGGAAGCACATGACCGAGC
AGAAAATACCCAGTTTGTCAAAGACTTCTTGAAGGAAACATTAAGAAGGAGCTATTTAAGCTGGCCACC
ACTGCACCTTACTTCACATACTCAGCCCTTGAGGAGGAAATGGACCGCAACAAGGACCACCCAGCCTTCG
CCCCCTTATATTTCCCCACGGAGCTACACCGGAAGGCAGCACTGATCAAGGACATGAAGTATTTCTTTGG
TGAAAACCTGGGAGGAGCAGGTGAAGTGCTCTGAGGCTGCCCAGAAGTATGTGGATCGGATCACTATGTA
GGGCAAAATGAGCCAGAGCTGCTGGTGGCCATGCTTATACTCGTTACATGGGGGACCTTTCAGGAGGCC
AGGTAAGGAGGTTGCCAGAGGGCACTAAAACCTCCAGCACTGGGGAAGGGACCCAATTCTACCT
GTTTGAGCATGTGGACAATGCCAGCAATCAAGCAGTTCTACCGCGCTAGAATGAATGCCTTGGACCTG
AATTTGAAGACCAAGAGAGGATTGTGGAGGAGGCAATAAAGCCTTTGAATATAACATGCAGATATTCA
GTGAACGGACAGGCTGGCTCCATGCTAGCAAGAGAAACCTGGAGGATGGGCTCCCGTACATGATGG
GAAGGGAGATACGTAATGCCCTTTTATGCTGCTCAGCCAGACAAAGGTACTAGGAGGCAGCAAC
TGCCCCCTCCAGACAACCGTGGCTGTGCTGAGGAAGCCTAGCCTGCAGCTCATTCTGGCTGCCAGTGTGG
CCTTGGTAGCTGGACTCTTGGCCTGGTACTACATG

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR223322 protein sequence
Red=Cloning site Green=Tags(s)

MSSEVETSEGVDESEKNSMAPEKENHTKMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLAT
 TALYFTYSALIEEEMDRNKDHPAFAPLYFPTELHRKAALIKDMKYFFGENWEEQVKCEAAQKYVDRIHVY
 GQNEPELLVAHAYTRYMGDLGGQVLKKVAQRALKLPSTGEGTQFYLFEHVDNAQQFKQFYRARMNALDL
 NLKTKERIVVEEANKAFEYNMQIFSELDQAGSMLARETLEDGLPVHDGKGDIRKCPFYAAQDPDKGTLGGSN
 CPFQTTVAVLRKPSLQLILAASVALVAGLLAWYYM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001136066

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).

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_001136066.2](#), [NP_001129538.1](#)

RefSeq Size: 1258 bp

RefSeq ORF: 948 bp

Locus ID: 15369

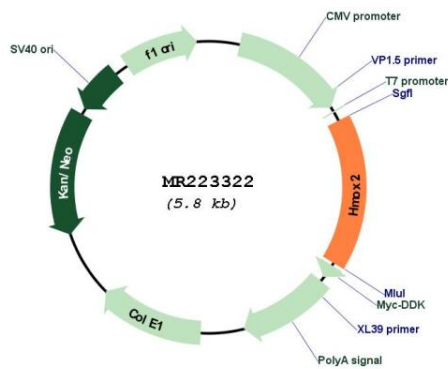
UniProt ID: [O70252](#)

Cytogenetics: 16 2.46 cM

MW: 35.7 kDa

Gene Summary: Heme oxygenase cleaves the heme ring at the alpha methene bridge to form biliverdin. Biliverdin is subsequently converted to bilirubin by biliverdin reductase. Under physiological conditions, the activity of heme oxygenase is highest in the spleen, where senescent erythrocytes are sequestrated and destroyed. Heme oxygenase 2 could be implicated in the production of carbon monoxide in brain where it could act as a neurotransmitter. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR223322