

Product datasheet for **MG223322**

Hmox2 (NM_001136066) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hmox2 (NM_001136066) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Hmox2
Synonyms: HO-2; HO2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG223322 representing NM_001136066
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTTCAGAGGTGGAGACCTCGGAGGGGTAGATGAGTCAGAGAAGAAGTCTATGGCACCAGAAAAGG
AAAACCATACCAAAATGGCAGACCTTTCTGAGCTCCTGAAGGAAGGGACCAAGGAAGCACATGACCGAGC
AGAAAATACCCAGTTTGTCAAAGACTTCTTGAAGGAAACATTAAGAAGGAGCTATTTAAGCTGGCCACC
ACTGCACCTTACTTCACATACTCAGCCCTTGAGGAGGAAATGGACCGCAACAAGGACCACCCAGCCTTCG
CCCCCTTATATTTCCCCACGGAGCTACACCGGAAGGCAGCACTGATCAAGGACATGAAGTATTTCTTTGG
TGAAAACCTGGGAGGAGCAGGTGAAGTGCTCTGAGGCTGCCCAGAAGTATGTGGATCGGATCACTATGTA
GGGCAAAATGAGCCAGAGCTGCTGGTGGCCATGCTTATACTCGTTACATGGGGGACCTTTCAGGAGGCC
AGGTAAGGAGGTTGCCAGAGGGCACTAAAACCTCCAGCACTGGGGAAGGGACCCAAATTCTACCT
GTTTGAGCATGTGGACAATGCCAGCAATCAAGCAGTTCTACCGCGCTAGAATGAATGCCTTGGACCTG
AATTTGAAGACCAAGAGAGGATTGTGGAGGAGGCCAATAAAGCCTTTGAATATAACATGCAGATATTCA
GTGAACGGACAGGCTGGCTCCATGCTAGCAAGAGAAACCCTGGAGGATGGGCTCCCGTACATGATGG
GAAGGGAGATACGTAATGCCCTTTTATGCTGCTCAGCCAGACAAAGGTACACTAGGAGGCAGCAAC
TGCCCCCTCCAGACAACCGTGGCTGTGCTGAGGAAGCCTAGCCTGCAGCTCATTCTGGCTGCCAGTGTGG
CCTTGGTAGCTGGACTCTTGGCCTGGTACTACATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG223322 representing NM_001136066
 Red=Cloning site Green=Tags(s)

MSSEVETSEGVDESEKNSMAPEKENHTKMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLAT
 TALYFTYSALIEEEMDRNKDHPAFAPLYFPTELHRKAALIKDMKYFFGENWEEQVKCSEAAQKYVDRIHVY
 GQNEPELLVAHAYTRYMGDLGGQVLKKVAQRALKLPSTGEGTQFYLFEHVDNAQQFKQFYRARMNALDL
 NLKTKERIVVEANKAFEYNMQIFSELDQAGSMLARETLEDGLPVHDGKGDIRKCCPFYAAQPKGTLGGSN
 CPFQTTAVLRKPSLQLILAASVALVAGLLAWYYM

TRTRPLE - GFP Tag - V

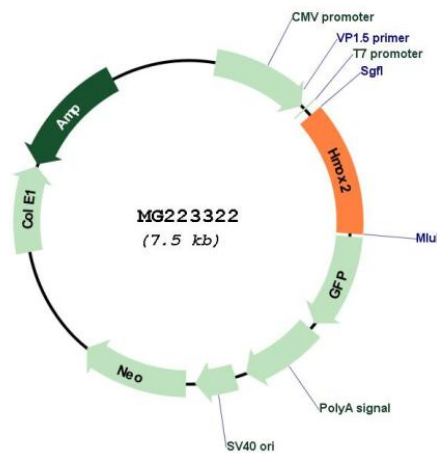
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001136066

ORF Size: 945 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_001136066.2 , NP_001129538.1
RefSeq Size:	1258 bp
RefSeq ORF:	948 bp
Locus ID:	15369
UniProt ID:	O70252
Cytogenetics:	16 2.46 cM
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 sequestered 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]