

Product datasheet for SC335103

OriGene Technologies, Inc.

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Heme oxygenase 2 (HMOX2) (NM_001286271) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Heme oxygenase 2 (HMOX2) (NM_001286271) Human Untagged Clone

Tag: Tag Free

Symbol: Heme oxygenase 2

Synonyms: HO-2

Mammalian Cell Neomycin

Selection:

Vector:

pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >NCBI ORF sequence for NM_001286271, the custom clone sequence may differ by one or

more nucleotides

ATGGCTGACCTCTCGGAGCTCCTGAAGGAAGGGACCAAGGAAGCACCGGCCAGAAAACACCCCAGT
TTGTCAAGGACTTCTTGAAAGGCAACATTAAGAAGGAGCTGTTTAAGCTGGCCACCACGGCACTTTACTT
CACATACTCAGCCCTCGAGGAGGAAATGGAGCGCAACAAGGACCATCCAGCCTTTGCCCCTTTGTACTTC
CCCATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGGACATGGAGTATTTCTTTGGTGAAAACTGGGAGG
AGCAGGTGCACCGCAAGGCTGCCCAGAAGTACGTGGAGCGGATCCACTACATAGGGCAGAACGAGCC
GGAGCTACTGGTGGCCCATGCATACACCCGCTACATGGGGGATCCTCTCGGGGGGCCAGGTGCTGAAGAAG
GTGGCCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGACCCAGTTCTACCTGTTTGAGAATGTGG
ACAATGCCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAACGCCCTGGACCTGAACATGAAGACCAA
AGAGAGGATCGTGGAGGAGGCCAACAAGGCTTTTGAGTATAACATGCAGATATTCAATGAACTGGACCAG
GCCGGCTCCACACTGGCCAGAGAGACCTTGGAGGATGGTTCCCTTGTACACGATGGGAAAGGACATGC
GTAAATGCCCTTTCTACGCTGCTGAACAAGACAAAGGTGCCCTGGAGGGCAGCAGCTGTCCCTTCCGAAC
AGCTATGGCTGTGCTGAGGAAGCCCAGCCTCCAGTTCATCCTGGCCGCTGGTTGCCCTTACCTGCT

CTCTTGGCCTGGTACTACATGTGA

Restriction Sites: Sgfl-Mlul

ACCN: NM 001286271

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).





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: <u>NM 001286271.1</u>, <u>NP 001273200.1</u>

 RefSeq Size:
 1627 bp

 RefSeq ORF:
 864 bp

 Locus ID:
 3163

 UniProt ID:
 P30519

 Cytogenetics:
 16p13.3

Protein Families: 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. Several alternatively spliced transcript variants encoding three different

isoforms have been found for this gene. [provided by RefSeq, Oct 2013]

Transcript Variant: This variant (9) differs in the 5' UTR and coding sequence compared to variant 5. The resulting isoform (c) is shorter at the N-terminus compared to isoform a.