

## Product datasheet for **SC322969**

### Heme oxygenase 2 (HMOX2) (NM\_001127205) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Heme oxygenase 2 (HMOX2) (NM_001127205) Human Untagged Clone
Tag:	Tag Free
Symbol:	Heme oxygenase 2
Synonyms:	HO-2
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	<p>&gt;NCBI ORF sequence for NM_001127205, the custom clone sequence may differ by one or more nucleotides</p> <pre> ATGTCAGCGGAAGTGGAACCTCAGAGGGGTAGACGAGTCAGAAAAAAGAACTCTGGG GCCCTAGAAAAGGAGAACCAATGAGAATGGCTGACCTCTCGAGCTCCTGAAGGAAGG ACCAAGGAAGCACACGACCGGGCAGAAACACCCAGTTTGTCAAGGACTTCTTGAAGGC AACATTAAGAAGGAGCTGTTTAAGCTGGCCACCACGGCACTTTACTTCACATACTCAGCC CTCGAGGAGGAAATGGAGCGCAACAAGGACCATCCAGCCTTTGCCCTTTGTAATTCCCC ATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGGACATGGAGTATTTCTTTGGTGAAGAC TGGGAGGAGCAGGTGCAGTGCCCAAGGCTGCCAGAAGTACGTGGAGCGGATCCACTAC ATAGGGCAGAACGAGCCGAGCTACTGGTGGCCCATGCATACACCCGCTACATGGGGGAT CTCTCGGGGGGCCAGGTGCTGAAGAAGGTGGCCAGCGAGCACTGAAACTCCCCAGCACA GGGGAAGGGACCCAGTTCTACCTGTTTGAGAATGTGGACAATGCCCAGCAGTTCAAGCAG CTCTACCGGGCCAGGATGAACGCCCTGGACCTGAACATGAAGACCAAAGAGAGGATCGTG GAGGAGGCCAACAAAGGCTTTTGAAGTATAACATGCAGATATTCAATGAACTGGACCAAGGC GGCTCCACTTGCCAGAGAGACCTTGAGGATGGGTTCCCTGTACACGATGGGAAAGGA GACATGCGTAAATGCCCTTTCTACGCTGCTGAACAAGACAAAGGTGCCCTGGAGGGCAGC AGCTGTCCCTTCCGAACAGCTATGGCTGTGCTGAGGAAGCCAGCCTCCAGTTCATCCTG GCCGCTGGTGTGGCCCTAGCTGCTGGACTCTTGGCCTGGTACTACATG </pre>
Restriction Sites:	Please inquire
ACCN:	NM_001127205
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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.


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<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_001127205.1, NP_001120677.1</u>
<b>RefSeq Size:</b>	1776 bp
<b>RefSeq ORF:</b>	951 bp
<b>Locus ID:</b>	3163
<b>UniProt ID:</b>	<u>P30519</u>
<b>Cytogenetics:</b>	16p13.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Porphyrin and chlorophyll metabolism
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR and coding sequence compared to variant 5. The resulting isoform (b) is shorter at the N-terminus compared to isoform a. Variants 1, 2, 3, 4, 6, 7, and 8 all encode the same isoform (b).</p>