

## Recombinant Human HMOX2

**Cat. No.** HMOX2-27003TH    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant fragment, corresponding to amino acids 1-264 of Human Heme oxygenase 2; 264 amino acids, MWt 30.5 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>    | 1-264 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | 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. Alternative splice variants encoding the same protein have been identified at this locus. |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>           | >90% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage buffer</b>   | Preservative: None<br>Constituents: 10% Glycerol, 20mM Tris, 1mM DTT, pH 8.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage</b>          | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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**Sequences of amino acids**

MSAEVETSEG VDESEKKNSG ALEKENQMRM ADLSELLKEG TKEAHDRAEN  
TQFVKDFLKG NIKKELFKLA TTALYFTYSA LEEEMERNKD HPAFAPLYFP  
MELHRKEALT KDMEYFFGEN WEEQVQCPKA AQKYVERIHV IGQNEPELLV  
AHAYTRYMGD LSGGQVLKKV AQRALKLPST GEGTQFYLFV NVDNAQQFKQ  
LYRARMNALD LNMKTKERIV EEANKAFEYN MQIFNELDQA GSTLARETLE  
DGFPVHDGKG DMRK

**Sequence Similarities**

Belongs to the heme oxygenase family. Contains 2 HRM (heme regulatory motif) repeats.

## GENE INFORMATION

**Gene Name**

HMOX2 heme oxygenase (decycling) 2 [ Homo sapiens ]

**Official Symbol**

HMOX2

**Synonyms**

HMOX2; heme oxygenase (decycling) 2; heme oxygenase 2; HO 2;

**Gene ID**

3163

**mRNA Refseq**

NM\_001127204

**Protein Refseq**

NP\_001120676

**MIM**

141251

**Uniprot ID**

P30519

**Chromosome Location**

16p13.3

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|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pathway</b>  | Heme degradation, organism-specific biosystem; Iron uptake and transport, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of porphyrins, organism-specific biosystem; Mineral absorption, organism-specific biosystem; |
| <b>Function</b> | electron carrier activity; heme oxygenase (decyclizing) activity; metal ion binding; oxidoreductase activity; protein binding;                                                                                                                          |

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