3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

HO2, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5186**
Storage Temperature –70 °C

Synonym: HMOX2

Product Description

HO2, or heme oxygenase 2, belongs to the heme oxygenase family that are essential enzymes in heme catabolism that cleave heme to form biliverdin, which is subsequently converted to bilirubin by biliverdin reductase.[1] HO2 is part of the calcium-sensitive potassium channel complex and enhances channel activity in normoxia.[2] Knockdown of HO2 expression reduces channel activity, an effect that is reversed by carbon monoxide. Inhibition of calcium-sensitive potassium channels by hypoxia is dependent on HO2 expression and is augmented by HO2 stimulation.

Recombinant, full-length, human, HO2 protein was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_002134. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~62 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

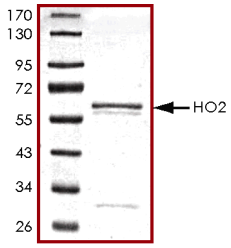
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Kemp, P.J. et al., Hemeoxygenase-2 as an O2 sensor in K^+ channel-dependent chemotransduction. Biochem. Biophys. Res. Commun., **338(1)**, 648-52 (2005).
2. Williams, S.E. et al., Hemoxygenase-2 is an oxygen sensor for a calcium-sensitive potassium channel. Science, **306**, 2093-2097 (2004).

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