



Recombinant Protein Technical Manual

Recombinant Human HO/HMOX1 Protein

RPES0471

Product Data:

Product SKU: RPES0471

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P09601

Protein Information:

Molecular Mass: 29.9 kDa

AP Molecular Mass: 30 kDa

Tag:

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 1mM EDTA, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Heme Oxygenase 1; HO; HMOX1; HO; HO1

Immunogen Information:

Sequence: Met 1-Thr 261

Background:

Heme Oxygenase 1 (HO) is an enzyme in endoplasmic reticulum that belongs to the heme oxygenase family. HO cleaves the heme ring at the alpha methene bridge to form Biliverdin. Biliverdin is subsequently converted to Bilirubin by Biliverdin reductase. In physiological state, the highest activity of HO is found in the spleen, where senescent erythrocytes are sequestered and destroyed. HO activity is highly inducible by its substrate heme and by various non-heme substances such as heavy metals, bromobenzene, endotoxin, oxidizing agents and UVA. HO is involved in the regulation of cardiovascular function and response to a variety of stressors. Defects in HO are the cause of Heme Oxygenase 1 deficiency, resulting in marked erythrocyte fragmentation and intravascular hemolysis, coagulation abnormalities, endothelial damage, and iron deposition in renal and hepatic tissues.