Recombinant Human HO-1/HMOX1 Protein

Catalog Number: PKSH032529

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

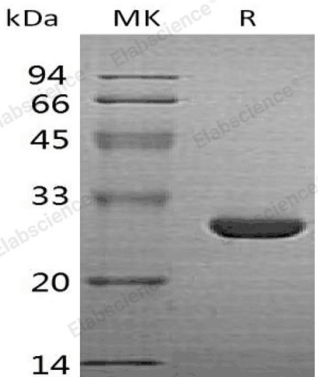
Description

Species	Human
Source	E.coli-derived Human HO-1;HMOX1 protein Met 1-Thr 261
Calculated MW	29.9 kDa
Observed MW	30 kDa
Accession	P09601
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein 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.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Heme Oxygenase 1 (HO-1) is an enzyme in endoplasmic reticulum that belongs to the heme oxygenase family. HO-1 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-1 is found in the spleen, where senescent erythrocytes are sequestrated and destroyed. HO-1 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-1 is involved in the regulation of cardiovascular function and response to a variety of stressors. Defects in HO-1 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.

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