Recombinant Human HO1 protein (His Tag)

Catalog Number: PDEH100857

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

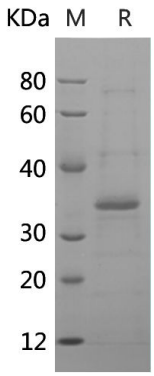
Description

Species	Human
Source	E.coli-derived Human HO1 protein Met1-Met288, with an N-terminal His
Calculated MW	31.6 kDa
Observed MW	35 kDa
Accession	P09601
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

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 no n-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.