

Datasheet for ABIN2859305

HMOX1 ELISA Kit[Go to Product page](#)**1** Image**1** Publication

Overview

Quantity:	96 tests
Target:	HMOX1
Binding Specificity:	AA 1-288
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	93.7-6000 pg/mL
Minimum Detection Limit:	93.7 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human HO-1/HMOX1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: M1-M288
Specificity:	E.coli, M1-M288
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl
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Target Details

Target:	HMOX1
Alternative Name:	HMOX1 (HMOX1 Products)
Background:	<p>Protein Function: Heme oxygenase cleaves the heme ring at the alpha methene bridge to form biliverdin. Biliverdin is subsequently converted to bilirubin by biliverdin reductase. Under physiological conditions, the activity of heme oxygenase is highest in the spleen, where senescent erythrocytes are sequestered and destroyed. Exhibits cytoprotective effects since excess of free heme sensitizes cells to undergo apoptosis.</p> <p>Background: HMOX1 (heme oxygenase (decycling) 1) is a human gene that encodes for the enzyme heme oxygenase 1. It is localized to chromosome 22. 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.</p> <p>Synonyms: Heme oxygenase 1,HO-1,1.14.99.3,HMOX1,HO, HO1,</p> <p>Full Gene Name: Heme oxygenase 1</p> <p>Cellular Localisation: Microsome . Endoplasmic reticulum membrane, Peripheral membrane protein, Cytoplasmic side.</p>
Gene ID:	3162
UniProt:	P09601
Pathways:	Transition Metal Ion Homeostasis , Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process , Production of Molecular Mediator of Immune Response , SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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Application Details

Comment:	Tissue Specificity: Expressed at higher levels in renal cancer tissue than in normal tissue (at protein level). .
Plate:	Pre-coated
Protocol:	human HO-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for HO-1 has been precoated onto 96-well plates. Standards(E.coli, M1-M288) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for HO-1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human HO-1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 6000pg/mL, 3000pg/mL, 1500pg/mL, 750pg/mL, 375pg/mL, 187.5pg/mL, 93.7pg/mL human HO-1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human HO-1 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 527, Standard deviation: 19, CV(%): 3.6• Sample 2: n=16, Mean(pg/ml): 2085, Standard deviation: 91.74, CV(%): 4.4• Sample 3: n=16, Mean(pg/ml): 3561, Standard deviation: 185.2, CV(%): 5.2,• Sample 1: n=24, Mean(pg/ml): 686, Standard deviation: 31.6, CV(%): 4.6• Sample 2: n=24, Mean(pg/ml): 2664, Standard deviation: 151.8, CV(%): 5.7• Sample 3: n=24, Mean(pg/ml): 3724, Standard deviation: 242.1, CV(%): 6.5
Restrictions:	For Research Use only

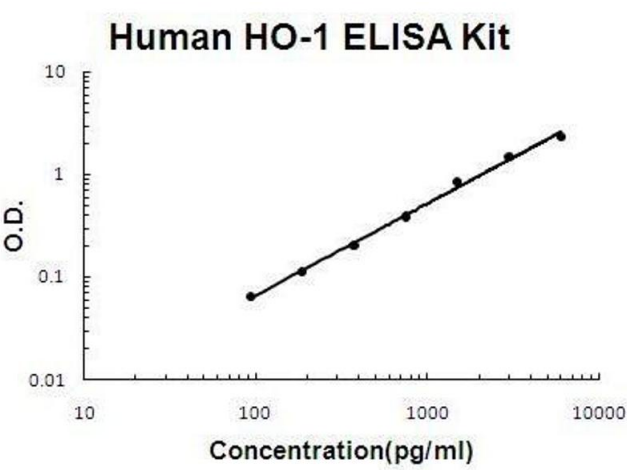
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C, 4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in: Huang, Zhu, Li, Sui, Min: "Effect of Blueberry Anthocyanins Malvidin and Glycosides on the Antioxidant Properties in Endothelial Cells." in: **Oxidative medicine and cellular longevity**, Vol. 2016, pp. 1591803, (2017) ([PubMed](#)).

Images



ELISA

Image 1. Human HO-1/HMOX1 PicoKine ELISA Kit standard curve