HO-1 (human), ELISA kit

Highly sensitive HO-1 ELISA kit enabling detection of HO-1 in cell lysates and tissue extracts in < 2.5 hours.

The HO-1 (human), EIA kit is a colorimetric immunometric enzyme immunoassay kit with results in < 2.5 hours. Absorbance is read at 450 nm. Save time, money, and precious sample with fully quantitative results and increased sensitivity compared to Western blot analysis.

Heme Oxygenase-1 (HO-1) also known as Hsp32, is the inducible isoform of heme oxygenase that catalyzes the NADPH, oxygen, and cytochrome P450 reductase dependent oxidation of heme to carbon monoxide, ferrous iron and biliverdin which is rapidly reduced to bilirubin. These products of the HO reaction have important physiological effects: carbon monoxide is a potent vasodilator and has been implicated to be a physiological regulator of cGMP and vascular tone; biliverdin and its product bilirubin are potent antioxidants; "free" iron increases oxidative stress and regulates the expression of many mRNAs (e.g., DCT-1, ferritin and transferring receptor) by affecting the conformation of iron regulatory protein (IRP)-1 and its binding to iron regulatory elements (IREs) in the 5'- or 3'- UTRs of the mRNAs. To date, three identified heme oxygenase isoforms are part of the HO system that catalyze heme into biliverdin and carbon monoxide. These are inducible HO-1 or Hsp32, constitutive HO-2 that is abundant in the brain and testis, and HO-3 which is related to HO-2 but is the product of a different gene. The HO system is the rate-limiting step in heme degradation and HO activity decreases the levels of heme which is a well known potent catalyst of lipid peroxidation and oxygen radical formation.

Citations: 67 View Online »

Ordering Information

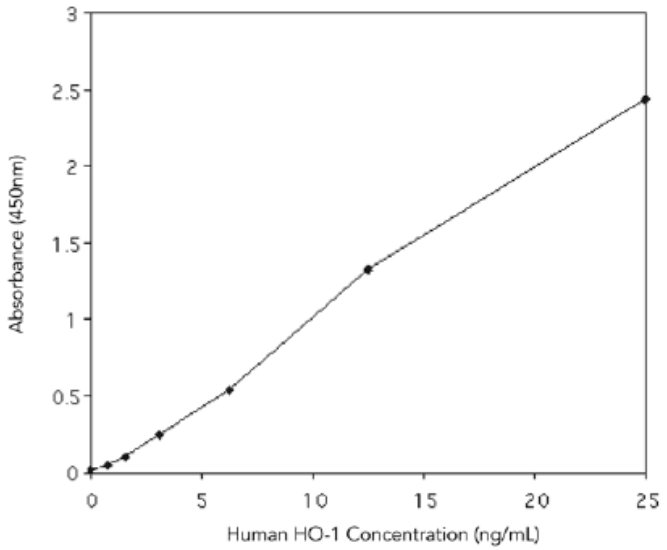
Order Online »

ADI-EKS-800	96 wells

Manuals, SDS & CofA

View Online »

- Highly sensitive assay, measure as little as 0.78 ng/ml of HO-1
- Reliable and reproducible results day-after-day and lot-after-lot
- Higher throughput format, assay up to 40 samples in duplicate in just 2.5 hours
- Fully quantitative results that surpass semi-quantitative Western blot analysis


Absorbance (450nm)
3
2.5
2
1.5
1
0.5
0
0
5
10
15
20
25
Human HO-1 Concentration (ng/mL)

Handling & Storage

Use/Stability	Store all components at 4°C, except standard at -20°C.
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Heme oxygenase 1
Application	Colorimetric detection, ELISA
Application Notes	For the quantitative determination of human heme oxygenase-1 in cell lysates and tissue extracts. Cited sample types include serum and plasma.
Assay Time	<2.5 hours
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	Microtiter plate, 5X Extraction reagent, Standard, Sample diluent, Wash buffer concentrate, Antibody, Antibody diluent, HRP Conjugate, Conjugate diluent, TMB Substrate, Stop solution 2
Crossreactivity	Human HO-1 (100%). No reactivity with HO-2 or HO-3.
Sensitivity	0.78 ng/ml (range 0.78 – 25 ng/ml)
Species Reactivity	Human
UniProt ID	P09601
Wavelength	450 nm

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