

# HO-1 monoclonal antibody (HO-1-2) (FITC conjugate)

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 transferrin 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.

This antibody is covered by our [Worry-Free Guarantee](#).

Citations: 5

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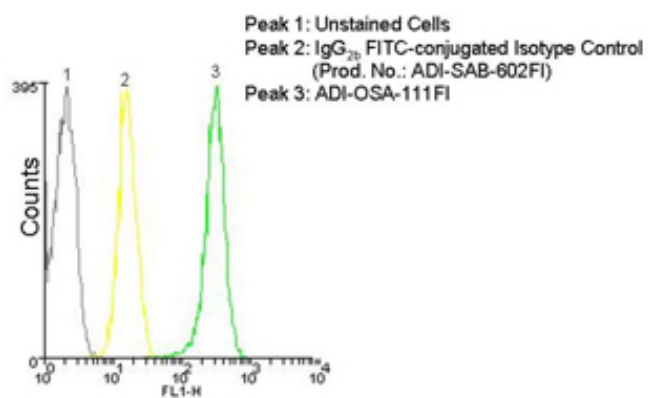
## Ordering Information

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ADI-OSA-111FI-D	50µg
ADI-OSA-111FI-F	200µg

Manuals, SDS & CofA

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Flow cytometry analysis of  $10^6$  Jurkat cells were stained using HO-1 mAb (HO-1-2), Fluorescein Conjugate at a concentration of  $50\mu\text{g/ml}$ .

## Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

**Alternative Name** HMOX1, Hsp32, Heat shock protein 32, Heme oxygenase 1

**Application** Flow Cytometry

**Application Notes** Detects a band of ~32kDa by Western blot.

**Clone** HO-1-2

**Formulation** Liquid. In PBS containing 0.09% sodium azide.

**GenBank ID** J02722

**Host** Mouse

**Immunogen** Native rat HO-1.

**Isotype** IgG2b

**Purity Detail** Protein G affinity purified.

**Recommendation** Flow Cytometry (1:20) Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application.

**Source** Purified from ascites.

**Species Reactivity** Dog, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat

**UniProt ID** P06762

### Worry-free Guarantee



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