HO-2 polyclonal antibody

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.

This antibody is covered by our Worry-Free Guarantee.

Citations: 12 View Online »

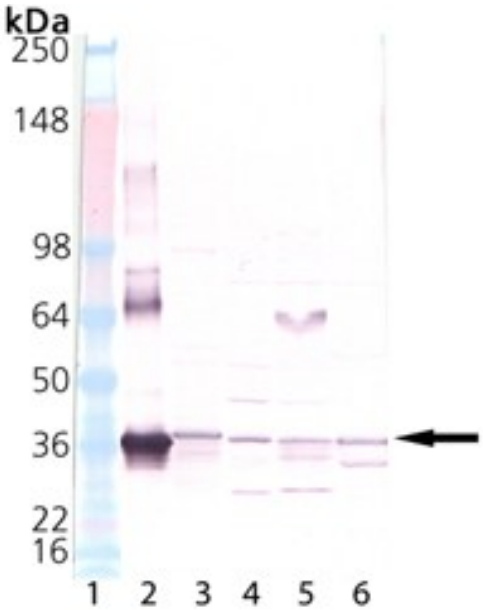
Ordering Information

Order Online »

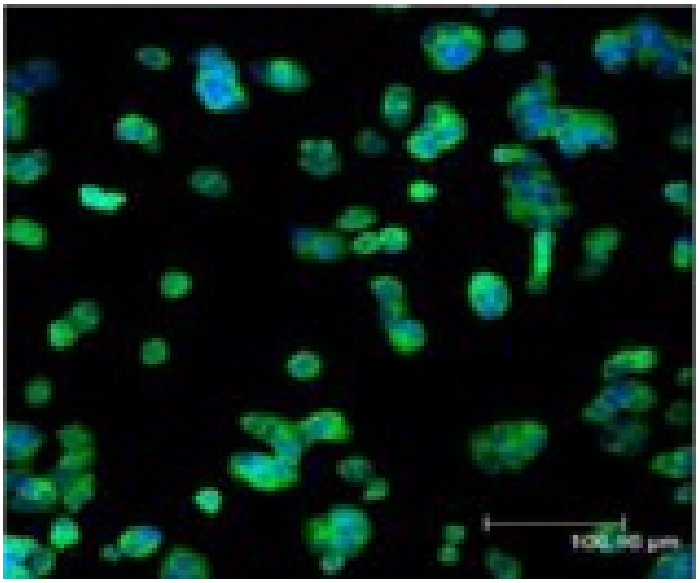
ADI-SPA-897-D	50µg
ADI-SPA-897-F	200µg

Manuals, SDS & CofA

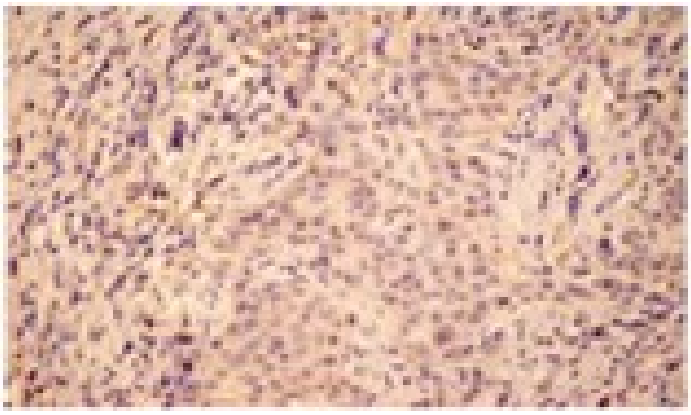
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Western blot analysis of HO-2, pAb: Lane 1: MW marker, Lane 2: HO-2 Recombinant Human Protein (Prod. No. ADI-SPP-550), Lane 3: Human Liver Microsome Extract, Lane 4: Mouse Liver Microsome Extract, Lane 5: Rat Liver Microsome Extract, Lane 6: Dog Liver Microsome Extract.



Immunofluorescent analysis (confocal) staining of MCF-7 cells using HO-2 pAb (green); nuclei are stained in blue pseudocolor using DRAQ5.



Immunohistochemistry analysis of human breast cancer tissue with HO-2 pAb.

Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	HMOX2, Hsp32, Heat shock protein 32, Heme oxygenase 2
Application	ELISA, ICC, IF, IHC, IP, WB
Application Notes	Detects a band of ~36kDa by Western blot.
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
GenBank ID	S34389
Host	Rabbit
Immunogen	Synthetic peptide corresponding to the sequence near the N-terminus of human HO-2.
Purity Detail	Protein A affinity purified.
Recommendation Dilutions/Conditions	Immunohistochemistry (1:50)Immunoprecipitation (10µg/ml, denatured)Western Blot (1:1,000, colorimetric)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Dog, Hamster, Human, Monkey, Mouse, Porcine, Rat
UniProt ID	P30519

Worry-free Guarantee

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