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Anti-HO-1 Antibody

Rabbit Anti-Human HO-1 Polyclonal
Catalog No. SPC-112



Discovery through partnership | Excellence through quality

Overview

Product Name

HO-1 Antibody

Description

Rabbit Anti-Human HO-1 Polyclonal

Species Reactivity

Dog, Human, Mouse, Rat

Applications

WB, ICC/IF, IHC

Antibody Dilution

WB (1:1000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

Host Species

Rabbit

Immunogen Species

Human

Immunogen

Human heme-oxygenase (HO-1) synthetic multiple antigenic peptide

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

PBS pH 7.4, 50% glycerol, 0.09% sodium azide

Storage Temperature

-20°C

Shipping Temperature

Blue Ice or 4°C

Purification

Protein A purified

Clonality

Polyclonal

Specificity

Detects ~32kDa.

Cite This Product

Rabbit Anti-Human HO-1 Polyclonal (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPC-112)

Certificate Of Analysis

1 µg/ml of SPC-112 was sufficient for detection of HO-1 in 10 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Biological Description

Alternative Names

Heme oxygenase 1 Antibody, Hemox Antibody, HMOX1 Antibody, HO1 Antibody, HO 1 Antibody, HSP32 Antibody

Research Areas

Cancer, Oxidative Stress

Cellular Localization

Endoplasmic Reticulum, Microsome

Accession Number

NP_002124.1

Gene ID

3162

Swiss Prot

P09601

Scientific Background

Heme-oxygenase is a ubiquitous enzyme that catalyzes the initial and rate-limiting steps in heme catabolism yielding equimolar amounts of biliverdin, iron and carbon monoxide. Biliverdin is subsequently converted to bilirubin and the free iron is sequestered to ferritin (1). These products have important physiological effects as carbon monoxide is a potent vasodilator; biliverdin and bilirubin are potent antioxidants; and the free iron increases oxidative stress and regulates the expression of many mRNAs (2).

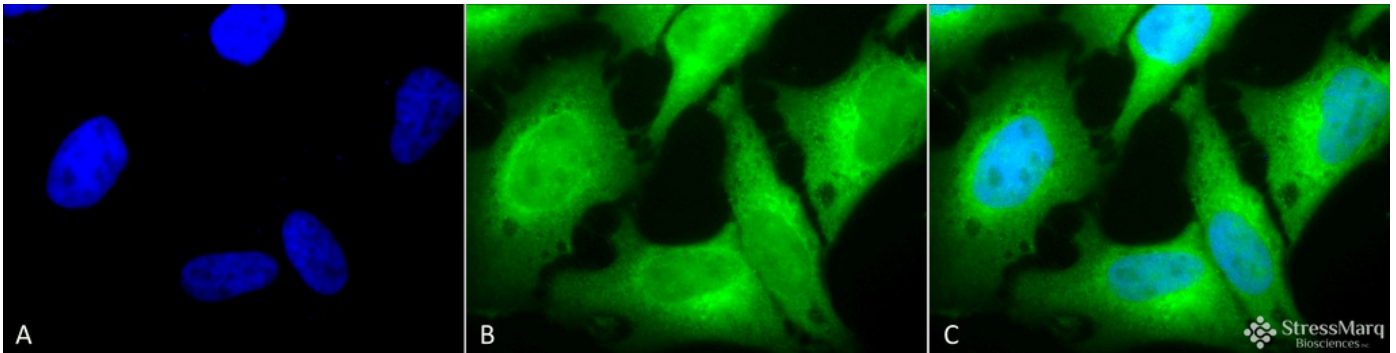
There are three isoforms of heme-oxygenase, HO-1, HO-2 and HO-3; however HO-1 and HO-2 are the major isoforms as they both have been identified in mammals (3). HO-1, also known as heat shock protein 32, is an inducible isoform activated by most oxidative stress inducers, cytokines, inflammatory agents and heat shock. HO-2 is a constitutive isoform which is expressed under homeostatic conditions. HO-1 is also considered to be a cytoprotective factor in that free heme is highly reactive and cytotoxic, and secondly, carbon monoxide is a mediator inhibiting the inflammatory process and bilirubin is a scavenger for reactive oxygen, both of which are the end products of heme catalyzation (4). It has also been shown that HO-1 deficiency may cause reduced stress defense, a pro-inflammatory tendency (5), susceptibility to atherosclerotic lesion formation (6), endothelial cell injury, and growth retardation (7). Up-regulation of HO-1 is therefore said to be one of the major defense mechanisms of oxidative stress (4).

References

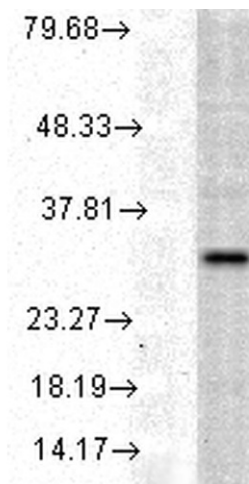
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3. Maines M.D., Trakshel G.M., and Kutty R.K. (1986) J Biol Chem 261: 411-419.

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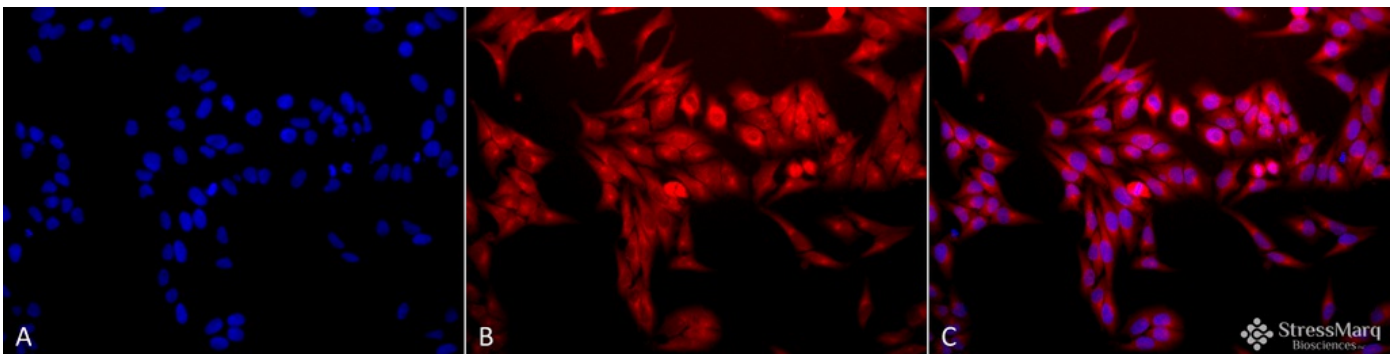
Product Images



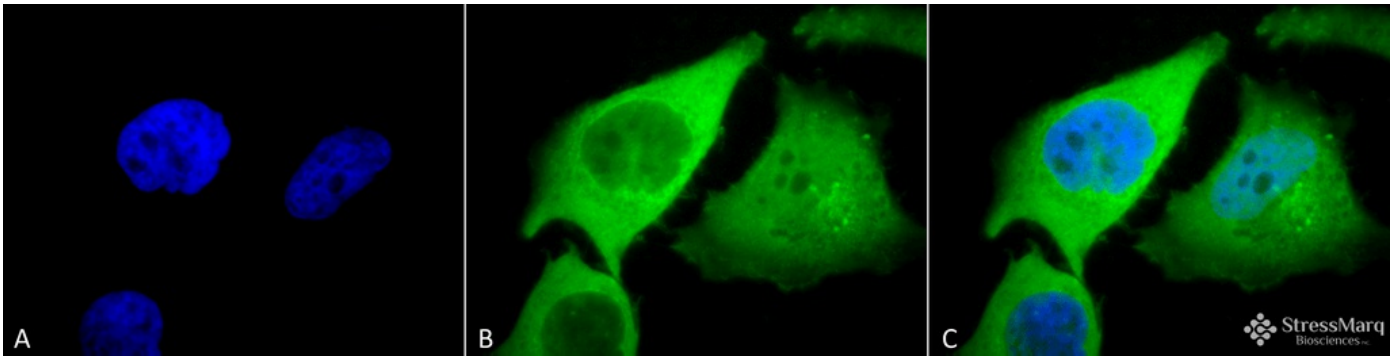
Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum membrane. Cytoplasm. Magnification: 100x. Heat Shocked at 42°C for 1h.



Western blot analysis of Human Cell line lysates showing detection of HO-1 protein using Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112). Load: 15 µg protein. Block: 1.5% BSA. Primary Antibody: Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112) at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum membrane. Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-HO-1 Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-HO-1 Polyclonal Antibody (SPC-112) at 1:120 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum membrane. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-HO-1 Antibody. (C) Composite.

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.