Datasheet for ABIN6656046

anti-HMOX1 antibody (C-Term)

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Overview

Quantity:	100 µg
Target:	HMOX1
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HMOX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), ELISA, Immunofluorescence (IF), Fluorescence Microscopy (FM)

Product Details

Purpose:	HO-1 Antibody
Immunogen:	HO-1 Antibody was produced in mice by repeated immunizations raised against a human HO-1 synthetic peptide corresponding to the C-terminus region.
Clone:	1F12-A6
Isotype:	IgG1 kappa
Cross-Reactivity (Details):	A BLAST analysis was used to suggest cross-reactivity with HO-1 from Human, Mouse, Bovine, Canine, Guinea pig, Hamster, Monkey, Pig, Rabbit, and Rat based on 100 % homology with the immunizing sequence.
Purification:	Anti-HO-1 Antibody was purified by Protein G chromatography.

Product Details

Sterility:	Sterile filtered

Target Details

Target:	HMOX1
Alternative Name:	HO-1 (HMOX1 Products)
Background:	Synonyms: Hsp32, HMOX1, Heme oxygenase 1, HO, HO1 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. 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. 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. 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. It has also been shown that HO-1 deficiency may cause reduced stress defense, a pro-inflammatory tendency, susceptibility to atherosclerotic lesion formation, endothelial cell injury, and growth retardation. Up-regulation of HO-1 is therefore said to be one of the major defense mechanisms of oxidative stress. Gene Name: HMOX1
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

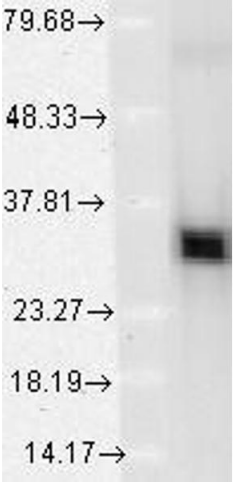
Application Notes:	Immunoprecipitation_Dilution: User Optimized ELISA_Dilution: 1:200 Immunohistochemistry_Dilution: User Optimized

Application Details

	IF_Microscopy_Dilution: User Optimized Western_Blot_Dilution: 1:500-1000
Comment:	Anti-HO-1 Antibody has been tested for WB, IP, IF microscopy, and IHC. Expect a band approximately 32kDa protein, corresponding to the molecular mass of HO-1 on SDS Page immunoblots. Specific conditions for reactivity should be optimized by the end user.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: 50 % (v/v) Glycerol Preservative: 0.09 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months



Western Blotting

Image 1. HO-1 Western Blot. Western Blot of mouse anti-HO-1 antibody. Lane 1: HeLa cell lysates. Lane 2: none. Load: 35 µg per lane. Primary antibody: HO-1 antibody at 1:1000 for overnight at 4°C. Secondary antibody: mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 32.8 kDa, ~35 kDa for HO-1. Other band(s): none.