

Datasheet for ABIN5021766

HMOX2 Protein (full length)



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Overview

Quantity:	100 µg
Target:	HMOX2
Protein Characteristics:	full length
Origin:	Rat
Source:	Rat
Protein Type:	Native
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MSSEVETSEG VDESENNSTA PEKENHTKMA DLSSELLKEGT KEAHDRAENT QFVKDFLKGN IKKELFKLAT TALYFTYSAL EEEMDRNKDH PAFAPLYFPT ELHRKEALIK DMEYFFGENW EEQVKCSEAA QKYVDRIHYV GQNEPELLVA HAYTRYMGDL SGGQVLKKVA QRALKLPSTG EGTQFYLFEB VDNAQQFKQF YRARMNALDL SMKTKERIVE EANKAFEYNM QIFSELDQAG SMLTKETLED GLPVHDGKGD VRKCPFYAAQ PDKGTLGGSN CPFRTAMAVL RKPSLQLILA ASVALVAGLL AWYYM
Specificity:	~36 kDa
Purification:	Ion-exchange Purified
Purity:	>90% pure using SDS - PAGE analysis.

Target Details

Target:	HMOX2
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Target Details

Alternative Name: HO-2 ([HMOX2 Products](#))

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).

Gene ID: 79239

NCBI Accession: [NP_077363](#)

UniProt: [P23711](#)

Pathways: [Transition Metal Ion Homeostasis](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: This product has been certified >90% pure using SDS - PAGE analysis.

Restrictions: For Research Use only

Handling

Concentration: Lot specific

Buffer: 20 mM Tris pH 7.5, 0.1 mM EDTA, 0.25 % Na cholate, <20 mM KCl

Storage: -80 °C