Datasheet for ABIN2482152

anti-HMOX2 antibody (Atto 390)

Go to Product page

2 Images

Overview

Quantity:	100 µg
Target:	HMOX2
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HMOX2 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	Rat native full-length HO-2 purified from testes
Specificity:	Detects ~36 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein A Purified

Target Details

Target:	HMOX2
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,

Target Details

	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:	• WB (1:500) • IHC (1:1000) • IP (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	2 µg/ml of ABIN2482152 was sufficient for detection of HO-2 in 20 µg of Rat brain lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

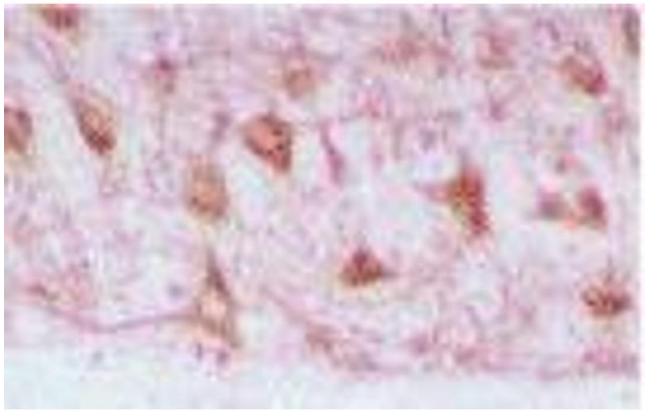
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide

Handling

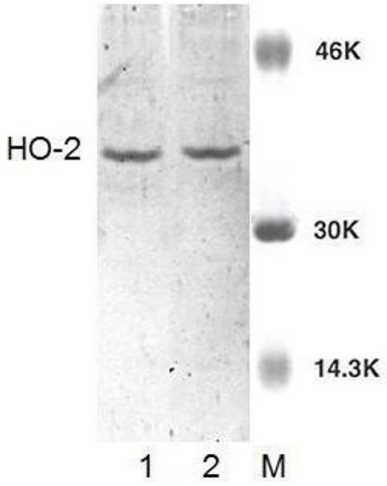
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



Immunohistochemistry

Image 1. Immunohistochemistry analysis using Rabbit Anti-HO-2 Polyclonal Antibody . Tissue: Spinal cord. Species: Rat. Primary Antibody: Rabbit Anti-HO-2 Polyclonal Antibody at 1:1000.



Western Blotting

Image 2. Western blot analysis of Rat Brain cell lysates showing detection of HO-2 protein using Rabbit Anti-HO-2 Polyclonal Antibody . Lane 1: Rat Brain lysate. Lane 2: Purified HO-2. Load: 10 µg. Primary Antibody: Rabbit Anti-HO-2 Polyclonal Antibody at 1:1000.