Datasheet for ABIN1686745

HMOX1 Protein (partial) (His tag)

1 Image

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Overview

Quantity:	100 µg
Target:	HMOX1
Protein Characteristics:	partial
Origin:	Rat
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HMOX1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MERPQLDSMS QDLSEALKEA TKEVHIRAEN SEFMRNFQKG QVSREGFKLV MASLYHIYTA LEEEIERNKQ NPVYAPLYFP EELHRRAALE QDMAFWYGPH WQEAIPYTPA TQHYVKRLHE VGGTHPELLV AHAYTRYLGD LSGGQVLKKI AQKAMALPSS GEGLAFFTFP SIDNPTKFKQ LYRARMNTLE MTPEVKHRVT EEAKTAFLLN IELFEELQAL LTEEHKDQSP SQTEFLRQRP ASLVQDTTSA ETPRGKSQIS T
Specificity:	~32 kDa
Purification:	Affinity Purified
Purity:	>90%

Target Details

Target:	HMOX1

Target Details

Alternative Name:	HO-1 (HMOX1 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).
Molecular Weight:	Approx. 32 kDa
Gene ID:	24451
NCBI Accession:	NP_036712
UniProt:	P06762
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

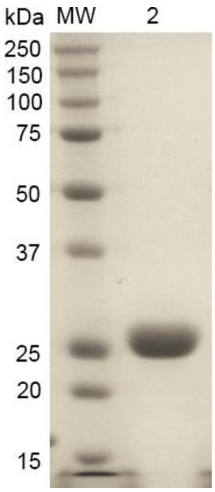
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	This product has been certified >90% pure using SDSPAGE analysis.
Restrictions:	For Research Use only

Handling

Concentration:	Lot specific
Buffer:	50 mM Tris/HCl pH 7.5, 5 mM Bme, 0.15NaCl, 10 % glycerol
Storage:	-20 °C

Images



SDS-PAGE

Image 1. SDS-PAGE of ~32 kDa rat HO-1 protein (ABIN1686744, ABIN1686745 and ABIN1686746).

