

Datasheet for 200-301-F47**HO-1 Antibody****Overview**

Description:	Anti-HO-1 (MOUSE) Monoclonal Antibody - 200-301-F47
Item No.:	200-301-F47
Size:	100 µg
Applications:	IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat, Bovine, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit
Host Species:	Mouse

Product Details**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.

Synonyms:	Hsp32, HMOX1, Heme oxygenase 1, HO, HO1
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	1F12-A6
Format:	IgG1

Target Details

Gene Name:	HMOX1
Reactivity:	Human, Mouse, Rat, Bovine, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit
Immunogen Type:	Conjugated Peptide
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.
Purity/Specificity:	Anti-HO-1 Antibody was purified by Protein G chromatography. 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. Does not cross-react with HO-2. Cross-reactivity with HO-1 from other sources has not been determined. Oxidative Stress research.
Relevant Links:	• UniProtKB - P09601

Application Details

Tested Applications:	IF, IHC, IP, WB
Application Note:	Anti-HO-1 Antibody has been tested for WB, IP, IF microscopy, and IHC-P. 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:200
IF:	User Optimized
IHC:	User Optimized
IP:	User Optimized
WB:	1:500-1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide

Stabilizer: 50% (v/v) Glycerol

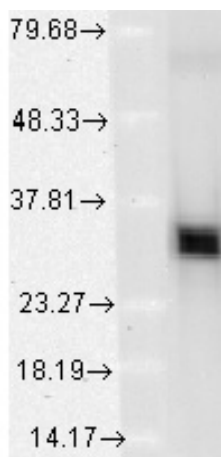
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: 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.

Expiration: Expiration date is one (1) year from date of receipt.

Images



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: IRDye800™ 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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.