

Product datasheet

Anti-Heme Oxygenase 1 antibody [HO-1-1] ab13248

★★★★☆ 15 Abreviews 74 References 8 Images

Overview

Product name	Anti-Heme Oxygenase 1 antibody [HO-1-1]
Description	Mouse monoclonal [HO-1-1] to Heme Oxygenase 1
Host species	Mouse
Tested applications	Suitable for: WB, ICC, Flow Cyt, ELISA, IP, Sandwich ELISA, IHC-P, ICC/IF, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Cow, Dog, Human, Monkey Predicted to work with: Pig
Immunogen	Synthetic peptide: MERPQPDSMPQDLSEALKEATKEVHTQAEN , corresponding to amino acids 1-30 of Human Heme Oxygenase 1. Run BLAST with Run BLAST with
Positive control	Recombinant Human or Rat HO-1 (Hsp32) Protein. HEK293 treated with 30 uM hemin for 18hrs (see Abreview). IHC-P: FFPE human spleen normal.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 50% Glycerol, PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	HO-1-1
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab13248** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 4 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 34.6 kDa).
ICC		1/500.
Flow Cyt		1/100. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ELISA		Use a concentration of 2 µg/ml.
IP		Use at an assay dependent concentration. PubMed: 24098580
Sandwich ELISA		Use a concentration of 5 µg/ml. Can be paired for Sandwich ELISA with Rabbit polyclonal to Heme Oxygenase 1 (ab13243) . For sandwich ELISA, use this antibody as Capture at 5 µg/ml with Rabbit polyclonal to Heme Oxygenase 1 (ab13243) as Detection.
IHC-P	★★★★★	Use a concentration of 1 - 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★☆	Use at an assay dependent concentration.
IHC-Fr	★★★★★	1/300.

Target

Function

Heme oxygenase cleaves the heme ring at the alpha methene bridge to form biliverdin. Biliverdin is subsequently converted to bilirubin by biliverdin reductase. Under physiological conditions, the activity of heme oxygenase is highest in the spleen, where senescent erythrocytes are sequestered and destroyed.

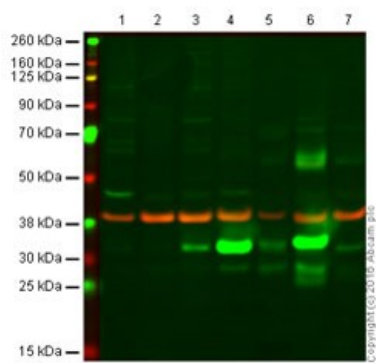
Sequence similarities

Belongs to the heme oxygenase family.

Cellular localization

Microsome. Endoplasmic reticulum.

Images



Western blot - Anti-Heme Oxygenase 1 antibody
[HO-1-1] (ab13248)

All lanes : Anti-Heme Oxygenase 1 antibody
[HO-1-1] (ab13248) at 1 µg/ml

Lane 1 : Hek293

Lane 2 : HL60

Lane 3 : HeLa

Lane 4 : A549

Lane 5 : Hu spleen

Lane 6 : Ms spleen

Lane 7 : Rt spleen

Lysates/proteins at 10 µg per lane.

Secondary

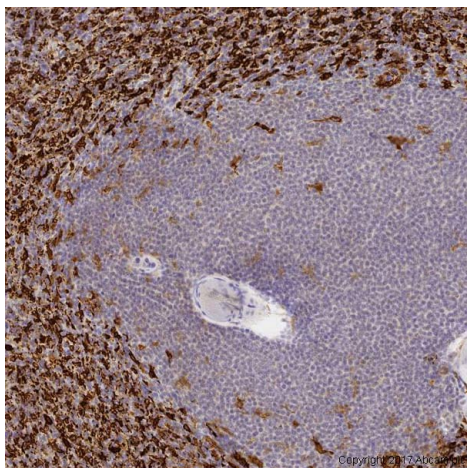
All lanes : IRDye® 800CW Goat anti Mouse

Predicted band size: 34.6 kDa

Observed band size: 32 kDa

Hek293 & HL60 presumed negative or very
low expression.

Loading control GAPDH at 38kDa

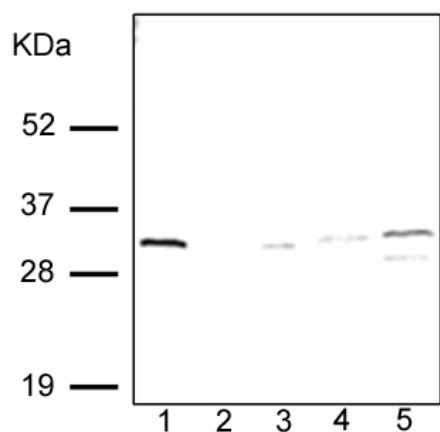


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

IHC image of Hem Oxygenase 1 staining in a section of formalin fixed, paraffin embedded normal human spleen tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab13248, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

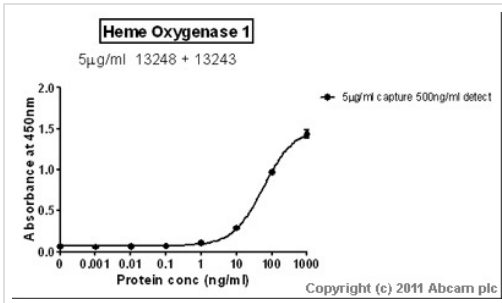
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



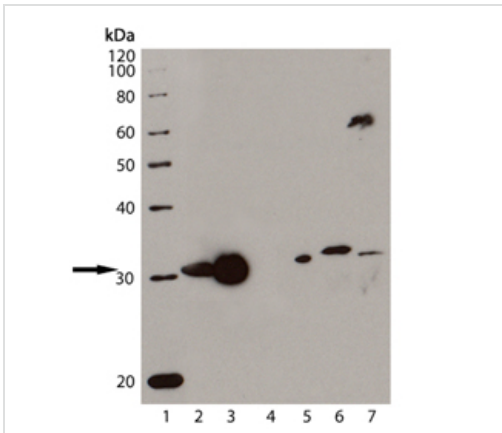
Western blot - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

The following proteins and lysates were electrophoresed; Lane 1 - Heme-Oxygenase-1 (Hsp32) Protein (50ng), lane 2 - Heme-Oxygenase-2 protein NSP-550 (100ng), lane 3 - MDBK Cell Lysate (20ug), lane 4 - Mouse liver microsome (20ug) and lane 5 - Dog liver microsome (20ug). ab13248 was applied at a concentration of 4ugml-1.



Sandwich ELISA - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

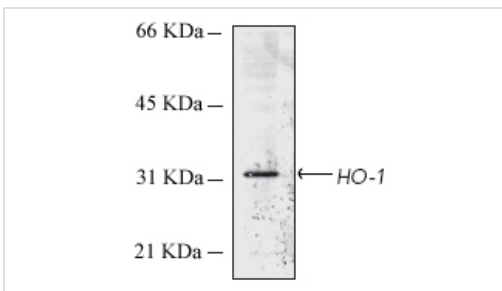
Standard Curve for Heme Oxygenase 1 (Analyte: [Heme Oxygenase 1 protein \(Tagged\) \(ab85243\)](#)); dilution range 1pg/ml to 1µg/ml using Capture Antibody [Mouse monoclonal \[HO-1-1\] to Heme Oxygenase 1 \(ab13248\)](#) at 5µg/ml and Detector Antibody [Rabbit polyclonal to Heme Oxygenase 1 \(ab13243\)](#) at 0.5µg/ml.



Western blot - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

- Lane 1** : MW marker
- Lanes 2-7** : Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)
- Lane 2** : Recombinant Rat Heme Oxygenase 1
- Lane 3** : Recombinant Human Heme Oxygenase 1
- Lane 4** : Recombinant Human Heme Oxygenase 2
- Lane 5** : MDBK cell lysate
- Lane 6** : Dog liver microsomes
- Lane 7** : Mouse liver microsomes

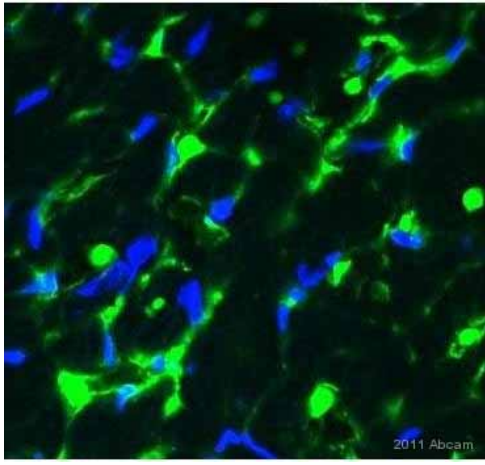
Predicted band size: 34.6 kDa



Western blot - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248) at 1/250 dilution + Human microsomes lysate

Predicted band size: 34.6 kDa

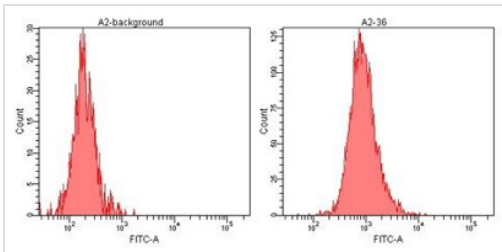


Immunohistochemistry (Frozen sections) - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)
Image courtesy of Mtuhtu S.Gounder by Abreview.

ab13248 staining Heme Oxygenase 1 in murine heart tissue by Immunohistochemistry (Frozen sections).

Tissue was fixed in paraformaldehyde, permeabilized, blocked using 2% serum for 1 hour at 30°C and then incubated with ab13248 at a 1/300 dilution for 12 hours at 4°C. The secondary used was an Alexa-Fluor 488 conjugated goat polyclonal used at a 1/500 dilution.

The green colour indicate Heme Oxygenase 1.
The blue colour indicate nucleus stain DAPI.



Flow Cytometry - Anti-Heme Oxygenase 1 antibody [HO-1-1] (ab13248)

ab13248 at 10µg/ml staining Heme Oxygenase 1 in human lung cancer A2 cells by flow cytometry. The left image represents staining with isotype control antibody and the right image show staining with ab13248.

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