**Product datasheet**

**Anti-Heme Oxygenase 1 antibody [EP1391Y] ab52947**

**Overview**

**Product name**
Anti-Heme Oxygenase 1 antibody [EP1391Y]

**Description**
Rabbit monoclonal [EP1391Y] to Heme Oxygenase 1

**Host species**
Rabbit

**Tested applications**
Suitable for: WB, IP, Flow Cyt, IHC-P

**Species reactivity**
Reacts with: Mouse, Guinea pig, Human

**Immunogen**
A synthetic peptide corresponding to residues near the C-terminus of human Heme Oxygenase 1

**Positive control**
WB: Fetal liver lysate, human liver tissue, A549, NIH/3T3, HEK-293, and HeLa cells. IHC-P: FFPE mouse spleen normal.

**General notes**
Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

**Properties**

**Form**
Liquid

**Storage instructions**
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

**Storage buffer**
pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.5% BSA

**Purity**
Protein A purified

**Clonality**
Monoclonal
Clone number: EP1391Y

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab52947 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>1/2000. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).</td>
<td></td>
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<tr>
<td>IP</td>
<td>1/60.</td>
<td></td>
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<tr>
<td>Flow Cyt</td>
<td>1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-P</td>
<td>Use a concentration of 0.1 - 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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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 sequestrated and destroyed.

Sequence similarities: Belongs to the heme oxygenase family.

Cellular localization: Microsome. Endoplasmic reticulum.

Images

Western blot - Anti-Heme Oxygenase 1 antibody [EP1391Y] (ab52947) at 1/1000 dilution

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 Rabbit

Predicted band size: 33 kDa
Observed band size: 32 kDa

why is the actual band size different from the predicted?

Hek293 & HL60 presumed negative or very low expression.

Loading control GAPDH at 38kDa

IHC image of ab52947 staining in mouse spleen formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. 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 ab52947, 5µg/ml, for 15 mins at room temperature. A goat anti-rabbit biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

All lanes: Anti-Heme Oxygenase 1 antibody [EP1391Y] (ab52947) at 1/1000 dilution

Lane 1: HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates with 5% NFDM/TBST

Lane 2: NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates with 5% NFDM/TBST

Lane 3: A549 (Human lung carcinoma epithelial cell) whole cell lysates with 5% NFDM/TBST

Lane 4: Mouse spleen lysates with 5% NFDM/TBST

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution
Predicted band size: 33 kDa
Observed band size: 33 kDa

Exposure time: 120 seconds

We are unsure how to define the extra bands

Overlay histogram showing HEK293 cells stained with ab52947 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52947, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1μg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HEK293 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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