Product datasheet

Anti-Glutathione Peroxidase 1 antibody [EPR3311] ab108429

8 References 4 Images

Overview

Product name  Anti-Glutathione Peroxidase 1 antibody [EPR3311]
Description  Rabbit monoclonal [EPR3311] to Glutathione Peroxidase 1
Host species  Rabbit
Tested applications  Suitable for: WB, IP, IHC-P, ICC, Flow Cyt
Species reactivity  Reacts with: Rat, Human
Immunogen  Synthetic peptide. within Human Glutathione Peroxidase 1 aa 1-100 (internal sequence). The exact sequence is proprietary.
Database link: P07203
Positive control  Human fetal liver, SH SY5Y, and THP1 cell lysates; Human breast carcinoma tissue.
General notes  Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production
For more information see here.

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

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer  pH: 7.20
Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant
Purity
Tissue culture supernatant

Clonality
Monoclonal

Clone number
EPR3311

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab108429 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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</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000 - 1/10000. Detects a band of approximately 22 kDa (predicted molecular weight: 22 kDa).</td>
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<td>IP</td>
<td>1/10 - 1/100.</td>
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<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.</td>
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<tr>
<td>ICC</td>
<td>1/50 - 1/100.</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration.</td>
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</table>

Target

Function
Protects the hemoglobin in erythrocytes from oxidative breakdown.

Sequence similarities
Belongs to the glutathione peroxidase family.

Cellular localization
Cytoplasm.

Images
**Western blot - Anti-Glutathione Peroxidase 1 antibody [EPR3311] (ab108429)**

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: GPX1 knockout HAP1 cell lysate (20 µg)
Lane 3: THP1 cell lysate (20 µg)
Lane 4: HL60 cell lysate (20 µg)
Lanes 1 and 2: Merged signal (red and green). Green - ab108429, observed at 22 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab108429 was shown to specifically react with Glutathione Peroxidase 1 in wild-type HAP1 cells. No band was observed when Glutathione Peroxidase 1 knockout samples were examined. Wild-type and Glutathione Peroxidase 1 knockout samples were subjected to SDS-PAGE. ab108429 and ab8245 (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

**Flow Cytometry - Anti-Glutathione Peroxidase 1 antibody [EPR3311] (ab108429)**

Flow Cytometry analysis of THP-1 (human acute monocytic leukemia) cells labeling Glutathione Peroxidase 1 with purified ab108429 at 1:250 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488)(ab150077)(1:2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, Cell without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.
Western blot - Anti-Glutathione Peroxidase 1 antibody [EPR3311] (ab108429)

All lanes: Anti-Glutathione Peroxidase 1 antibody [EPR3311] (ab108429) at 1/1000 dilution

Lane 1: Human fetal liver lysate
Lane 2: SH SY5Y cell lysate
Lane 3: THP1 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 22 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutathione Peroxidase 1 antibody [EPR3311] (ab108429)

ab108429, at 1/100 dilution, staining Glutathione Peroxidase 1 in paraffin-embedded Human breast carcinoma tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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