**Product datasheet**

**Anti-GLYR1 antibody ab124615**

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**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-GLYR1 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to GLYR1</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td></td>
<td>Predicted to work with: Rat, Rabbit, Chicken, Cow, Pig, Chimpanzee, Macaque monkey, Gorilla, Chinese hamster, Orangutan</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide corresponding to Human GLYR1 aa 50-150 conjugated to keyhole limpet haemocyanin. (Peptide available as ab166838)</td>
</tr>
<tr>
<td>Positive control</td>
<td>This antibody gave a positive signal in the following whole cell lysates: HeLa; HEK293; U2OS; Caco2; HCT116; NIH3T3; SW480. This antibody gave a positive result when used in the following methanol fixed cell lines: HeLa.</td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituent: PBS</td>
</tr>
<tr>
<td></td>
<td>Note: Batches of this product that have a concentration &lt; 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
</tr>
</tbody>
</table>

**Applications**
Our Abpromise guarantee covers the use of ab124615 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>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa). Abcam recommends using milk as the blocking agent - 3%</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>1/400. Use with paraformaldehyde or methanol fixed cells.</td>
</tr>
</tbody>
</table>

**Target**

**Function**
May have oxidoreductase activity. Regulates p38 MAP kinase activity by mediating stress activation of p38alpha/MAPK14 and specifically regulating MAPK14 signaling. Indirectly promotes phosphorylation of MAPK14 and activation of ATF2. The phosphorylation of MAPK14 requires upstream activity of MAP2K4 and MAP2K6. Recruited on chromatin, recognizes and binds trimethylated 'Lys-36' of histone H3 (H3K36me3).

**Sequence similarities**
Belongs to the 3-hydroxyisobutyrate dehydrogenase family. NP60 subfamily.
Contains 1 A.T hook DNA-binding domain.
Contains 1 PWWP domain.

**Domain**
The A.T hook DNA-binding domain is required for the interaction with MAPK14.
The PWWP domain probably mediates the binding to H3K36me3.

**Cellular localization**
Nucleus.

**Images**
ICC/IF image of ab124615 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab124615 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
Immunocytochemistry/Immunofluorescence - Anti-GLYR1 antibody (ab124615)

Image courtesy of an abreview submitted by Dr. Kirk Mcmanus, Univ. of Manitoba/Cancer Care MCB, Canada.

ab124615 (1/400) staining GLYR1 in asynchronous HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised in 0.5% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (red). For further experimental details please refer to Abreview.

Western blot - Anti-GLYR1 antibody (ab124615)

All lanes: Anti-GLYR1 antibody (ab124615) at 1 µg/ml

Lane 1: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2: HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 3: U2OS (Human osteosarcoma cell line) Whole Cell Lysate
Lane 4: Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate
Lane 5: HCT 116 (Human Colorectal Carcinoma) Whole Cell Lysate
Lane 6: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 7: SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 60 kDa
Observed band size: 60 kDa
Additional bands at: 36 kDa, 62 kDa, 76 kDa. We are unsure as to the identity of these extra bands.
Exposure time: 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk before being incubated with ab124615 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

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