Datasheet for ABIN350792

anti-RGR antibody

Overview

<table>
<thead>
<tr>
<th>Quantity:</th>
<th>100 μL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target:</td>
<td>RGR</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>Mouse</td>
</tr>
<tr>
<td>Host:</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Clonality:</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Conjugate:</td>
<td>This RGR antibody is un-conjugated</td>
</tr>
<tr>
<td>Application:</td>
<td>Western Blotting (WB), Immunohistochemistry (IHC)</td>
</tr>
</tbody>
</table>

Product Details

| Immunogen: | A synthetic peptide from mouse retinal G protein coupled receptor (RGR) conjugated to blue carrier protein was used as the antigen. |
| Specificity: | Specific for RGR. |
| Cross-Reactivity: | Marmoset, Mouse |
| Cross-Reactivity (Details): | Other species not yet tested. |
| Purification: | Whole serum |

Target Details

| Target: | RGR |
| Alternative Name: | RGR (RGR Products) |
| Background: | FUNCTION: Receptor for all-trans- and 11-cis-retinal. Binds preferentially to the former and may... |
### Target Details

catalyze the isomerization of the chromophore by a retinochrome-like mechanism.

**SUBCELLULAR LOCATION:** Membrane, Multi-pass membrane protein., Vision, RPE-retinal G protein-coupled receptor

<table>
<thead>
<tr>
<th>UniProt</th>
<th>Q9Z2B3</th>
</tr>
</thead>
</table>

### Application Details

**Application Notes:** IHC, WB. A dilution of 1 : 1000 is recommended. The optimal dilution should be determined by the end user. Not yet tested in other applications.

**Comment:** The purified IgG fraction of this anti-RGR whole serum is available under the product number ABIN7271760. The immunogenic peptide that can be used as blocking peptide is available under the number ABIN7271761.

**Restrictions:** For Research Use only

### Handling

**Format:** Lyophilized

**Reconstitution:** Reconstitute in 100 µL of sterile water. Centrifuge to remove any insoluble material.

**Handling Advice:** Avoid freeze and thaw cycles.

**Storage:** 4 °C/-20 °C

**Storage Comment:** Maintain the lyophilised/reconstituted antibodies frozen at -20°C for long term storage and refrigerated at 2-8°C for a shorter term. When reconstituting, glycerol (1:1) may be added for an additional stability. Avoid freeze and thaw cycles.

**Expiry Date:** 12 months
Validation report #104446 for Immunohistochemistry (IHC)

Successfully validated (Immunohistochemistry (IHC))

by Palczewski Lab, Center For Translational Vision Research, UC Irvine

Report Number: 104446

Date: Sep 21 2022

Target: RGR

Lot Number: Rb3134-24117-WS, Rb3135-24117-WS

Method validated: Immunohistochemistry (IHC)

Positive Control: Retina cryosection from Rgr +/+ mouse, Animal validated by genotyping

Negative Control: Retina cryosection from Rgr -/- mouse, Animal validated by genotyping

Notes: Passed. Presence of specific signal in the RPE cell layer in Rgr +/+ section, and its absence in a respective Rgr -/- section was considered as indication of antiserum ABIN350792 lot Rb3134-24117-WS and lot Rb3135-24117-WS being immunoreactive to Rgr.

Primary Antibody: ABIN350792

Secondary Antibody: donkey anti-rabbit AF488-conjugated antibody (Thermo Fisher Scientific, A-21206)

Protocol:

- Collect eyes from mice and fix with paraformaldehyde 4% (Electron Microscopy Sciences, 15710) in 1x PBS for 30 min at RT.
- Cryoprotection with sucrose series:
  - Wash in 10% sucrose in 1x PBS.
  - Immerse in 10% sucrose in 1x PBS for 30 min at RT.
  - Wash in 20% sucrose in 1x PBS.
  - Immerse in 20% sucrose in 1x PBS for 30 min RT.
  - Wash in 30% sucrose in 1x PBS.
  - 30% sucrose overnight at 4°C.
- Embed eyes in OCT compound (Tissue-Tek O.C.T. Compound, 4583).
- Cut retinal sections at a thickness of 12 μm on a cryostat.
- Air dry sections for 15 min at RT, store at -80°C until use.
- Sections brought to room temp, rehydrated in 1x PBS for 1h.
- Incubate sections in blocking buffer (1x PBS, 3% BSA (Sigma-Aldrich, A7030), 3% Donkey serum (Sigma-Aldrich, S30-100ML), 0.1% Triton X-100 (Sigma-Aldrich, X100-500ML)) for 1 h at RT.
- Incubate sections with primary rabbit anti-Rgr antiserum (antibodies-online, ABIN350792) diluted 1:100 in blocking buffer ON at RT. Include a no primary antibody negative controls.
- Rinse sections 3 times with 1x PBS, 0.1% Triton X-100. Keep negative controls in a separate container.
Validation report #104446 for Immunohistochemistry (IHC)

- Incubate sections with secondary donkey anti-rabbit AF488-conjugated antibody (Thermo Fisher Scientific, A-21206) diluted 1:500 in blocking buffer for 1 h at RT.
- Rinse sections with once PBS, 0.1% Triton X100 for 5 min at RT.
- Incubate sections in DAPI (Thermo Fisher Scientific, 62248) in 1x PBS, 0.1% Triton X100 for 15 min.
- Rinse sections 3 times with 1x PBS, 0.1% Triton X-100 for 5 min at RT.
- Mount sections in VECTASHIELD® HardSet™ Antifade Mounting Medium (Vector Laboratories, H-1400) mounting medium.
- Acquire images with a fluorescence microscope and appropriate filter settings. For the validation purposes Keyence BZ-X800E fluorescence microscope was used with following filters: BZ-X DAPI for DAPI, BZ-X GFP for AF488, BZ-X Cy5 for Cy5. Images were taken at 100x magnification (ABIN350792 lot Rb3134-24117-WS) or 40x magnification (ABIN350792 lot Rb3135-24117-WS).

Experimental Notes:
- The experiments involved comparison of seven different anti-mouse Rgr antisera produced in rabbit. Two sera proved immunoreactive to Rgr: anti-Rgr antiserum lot Rb3134-24117-WS and anti-Rgr antiserum lot Rb3135-24117-WS. Lot Rb3134-24117-WS also showed much lower background level.
- Rgr in mouse eye is predominantly expressed in the RPE cell layer, and to much lesser extent in the Muller glia (for details see Fig 10, PMID31694912).
- To aid orientation in the tissue layers PNA (cone photoreceptor) counterstain was included in the staining (Vector Labs, PNA-Cy5 CL-1075-1) together with the secondary Ab incubation, at 1:500 dilution.

Images for Validation report #104446

Validation image no. 1 for anti-Retinal G Protein Coupled Receptor (RGR) antibody (ABIN350792)

Retinal sections from the Rgr +/+ and Rgr -/- animals immunostained with ABIN350792 lot Rb3134-24117-WS. DAPI staining shows localization of the inner (INL) and outer (ONL) nuclear layer of the mouse retina. PNA staining was used to visualize cone inner and outer segments. RPE rests above cones, and is the site of highest Rgr expression in mouse eye. Magnification 100x.
Validation image no. 2 for anti-Retinal G Protein Coupled Receptor (RGR) antibody (ABIN350792)

Retinal sections from the Rgr +/+ and Rgr -/- animals immunostained with ABIN350792 lot Rb3135-24117-WS. DAPI staining shows localization of the inner (INL) and outer (ONL) nuclear layer of the mouse retina. PNA staining was used to visualize cone inner and outer segments. RPE rests above cones, and is the site of highest Rgr expression in mouse eye. Magnificatio 40x.