## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-5HT1A Receptor antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to 5HT1A Receptor</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-FoFr, WB, IHC-P, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td></td>
<td>Predicted to work with: Horse, Chicken, Dog, Chimpanzee, Gorilla, Orangutan</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide corresponding to Rat 5HT1A Receptor aa 100-200 conjugated to keyhole limpet haemocyanin. Database link: P19327 (Peptide available as ab98259)</td>
</tr>
<tr>
<td>Positive control</td>
<td>This antibody gave a positive signal in both Mouse and Rat hippocampus tissue lysate as well as the following whole cell lysates: Caco2; HepG2; Jurkat. This antibody gave a positive result in IHC in the following FFPE tissue: Human normal liver.</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>
</tbody>
</table>
| Storage buffer     | pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituent: PBS |
|                    | Batches of this product that have a concentration < 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. |
| Purity             | Immunogen affinity purified |
| Clonality          | Polyclonal |
| Isotype            | IgG |

## Applications
**Function**
This is one of the several different receptors for 5-hydroxytryptamine (serotonin), a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. The activity of this receptor is mediated by G proteins that inhibit adenylate cyclase activity.

**Sequence similarities**
Belongs to the G-protein coupled receptor 1 family. 5-hydroxytryptamine receptor subfamily. HTR1A sub-subfamily.

**Cellular localization**
Cell membrane.

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### Applications

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-FoFr</td>
<td>3.5/5</td>
<td>Use at an assay dependent concentration. PubMed: 26076134</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 62 kDa (predicted molecular weight: 46 kDa).</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
</tr>
</tbody>
</table>

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### Target

**Function**
This is one of the several different receptors for 5-hydroxytryptamine (serotonin), a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. The activity of this receptor is mediated by G proteins that inhibit adenylate cyclase activity.

**Sequence similarities**
Belongs to the G-protein coupled receptor 1 family. 5-hydroxytryptamine receptor subfamily. HTR1A sub-subfamily.

**Cellular localization**
Cell membrane.

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### Images

IHC image of 5HT1A Receptor staining in Human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica BondTM 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 ab85615, 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.
ICC/IF image of ab85615 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 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 (ab85615, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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.

Immunohistochemistry (PFA perfusion fixed frozen sections) analysis of rat hippocampus labelling 5HT1A with ab85615 (red). For immunofluorescence analysis, the rats were anaesthetized using chloral hydrate and then were perfused with 150 mL of saline solution and 150–200 mL of 4% paraformaldehyde in 0.1 M phosphate buffer (PB). Then, the brains of the rats were isolated and fixed in 4% paraformaldehyde for 2–3 h. The rat brain sections were cut on a freezing microtome at a thickness of 16 µm and were washed with phosphate-buffered saline (PBS) and pre-incubated in 5% horse serum. Subsequently, the sections were incubated with Anti-5HT1A Receptor antibody (ab85615) for 24 h at 4°C, washed with PBS and incubated with the secondary antibody and neuro tracer for 2 h at room temperature while protected from light. The sections were examined on a Nikon C2 plus confocal laser-scanning microscope.
**Western blot - Anti-5HT1A Receptor antibody (ab85615)**

**All lanes:** Anti-5HT1A Receptor antibody (ab85615) at 1 µg/ml

- **Lane 1:** Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate
- **Lane 2:** Rat Hippocampus Tissue Lysate
- **Lane 3:** Mouse Hippocampus Tissue Lysate
- **Lane 4:** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
- **Lane 5:** Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

- **All lanes:** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

- **Predicted band size:** 46 kDa
- **Observed band size:** 62 kDa

**why is the actual band size different from the predicted?**

**Additional bands at:** 37 kDa, 48 kDa. We are unsure as to the identity of these extra bands.

- **Exposure time:** 30 seconds

The expression profile observed is consistent with what has been described in the literature (PMID: 16772521).
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