Overview

Product name: Anti-Oxytocin-neurophysin 1 antibody
Description: Rabbit polyclonal to Oxytocin-neurophysin 1
Host species: Rabbit
Specificity: Less than 1% reactivity to vasopressin.
Tested applications: Suitable for: IHC-FoFr, ICC/IF, IHC-P
Species reactivity: Reacts with: Mouse, Rat, Sheep, Rabbit, Guinea pig, Human, Pig
Immunogen: Other Immunogen Type corresponding to Oxytocin-neurophysin 1. Immunogen: oxytocin-thyroglobulin

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Constituent: Whole serum
Purity: Whole antiserum
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab2078 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>IHC-FoFr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 20043984</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>1/200,</td>
</tr>
</tbody>
</table>

Product datasheet

Anti-Oxytocin-neurophysin 1 antibody ab2078

★★★★ 2 Abreviews  9 References  2 Images
Relevance

Neurophysin 1 specifically binds oxytocin. Oxytocin causes contraction of the smooth muscle of the uterus and of the mammary gland. Oxytocin is a posterior pituitary hormone which is synthesized as an inactive precursor in the hypothalamus along with its carrier protein neurophysin l. Together with neurophysin, it is packaged into neurosecretory vesicles and transported axonally to the nerve endings in the neurohypophysis, where it is either stored or secreted into the bloodstream. Oxytocin contracts smooth muscle during parturition and lactation. It is also involved in cognition, tolerance, adaptation and complex sexual and maternal behaviour, as well as in the regulation of water excretion and cardiovascular functions.

Cellular localization

Secreted

Images

Minipigs were deeply anesthetized with a combination of midazolam and ketamine, prior to transcardial perfusion with phosphate buffered 4% paraformaldehyde (pH 7.4). After perfusion, the brains were removed with special care taken to preserve the optic chiasm and the median eminence. Blocks of tissue containing the hypothalami were dissected, postfixed in the same fixative for 1 day and subsequently cryoprotected in 30% sucrose for 3–4 days, prior to freezing. 10 series of 40-mm thick coronal (6 animals), sagittal (1 animal), and horizontal (1 animal) cryostat sections were collected. Coronal sections for immunohistochemistry were maintained at -18°C as free-floating sections in a cryoprotectant poly-ethylene glycol solution for up to four weeks.

Immunohistochemistry was performed using the avidin-biotin method. Accordingly, free-floating sections were first rinsed in Tris-buffered saline (TBS; 0.05 M; pH 7.4) for 15 minutes. Incubations with avidin (0.1%) and
ab2078 stained HepG2 (human liver hepatocellular carcinoma cell line) cells. The cells were 4% formaldehyde fixed (10 minutes) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1 hour to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab2078 at 1/200 dilution overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1 hour. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1 hour. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 µM.

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