Product datasheet

Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody ab41172

Overview

Product name: Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody
Description: Rabbit polyclonal to Nicotinic Acetylcholine Receptor alpha 4/CHRNA4
Host species: Rabbit
Specificity: Antiserum Specificity Polypeptide % Cross Reactivity Nicotinic a4 receptor (620-627) 100 Nicotinic a4 receptor ~80 Nicotinic a3 receptor 0 Nicotinic a5 receptor 0 Nicotinic a7 receptor 0 Nicotinic S2 receptor 0 Nicotinic S3 receptor 0 Nicotinic S4 receptor 0
Tested applications: Suitable for: IHC-P, WB
Species reactivity: Reacts with: Human
Immunogen: Synthetic peptide corresponding to Human Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 aa 620-627 (C terminal) conjugated to keyhole limpet haemocyanin (Cysteine residue).
Sequence: PPWLAGMI
(Peptide available as ab49523, ab99319)

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer: Constituents: PBS, 1% BSA
Purity: Whole antiserum
Clonality: Polyclonal
Isotype: IgG

Applications

The Abpromise guarantee: Our Abpromise guarantee covers the use of ab41172 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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<tbody>
<tr>
<td>IHC-P</td>
<td></td>
<td>1/250.</td>
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<tr>
<td>WB</td>
<td></td>
<td>1/800. Predicted molecular weight: 70 kDa. With this antibody, we have found that blocking with 5% goat or donkey serum significantly reduces background as compared to BSA or milk.</td>
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Target

Function: After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane.

Involvement in disease: Defects in CHRNA4 are the cause of nocturnal frontal lobe epilepsy type 1 (ENFL1) [MIM:600513]; also symbolized ADNFLE. ENFL1 is an autosomal dominant epilepsy characterized by nocturnal seizures with hyperkinetic automatisms and poorly organized stereotyped movements.

Sequence similarities: Belongs to the ligand-gated ion channel (TC 1.A.9) family. Acetylcholine receptor (TC 1.A.9.1) subfamily. Alpha-4/CHRNA4 sub-subfamily.


Images
**Western blot** - Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody (ab41172)

**All lanes:** Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody (ab41172) at 1/800 dilution

**Lane 1:** SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate
**Lane 2:** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
**Lane 3:** HeLa (Human epithelial carcinoma 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

**Predicted band size:** 70 kDa

ab41172 (1/250 dilution) staining Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 in human cerebellum using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of nuclear and membrane compartment within the glia region of cells.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX.

Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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