abcam

Product datasheet

Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody ab41172

★★★★★ 1 Abreviews 5 References 2 Images

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 ß2 receptor 0 Nicotinic ß3 receptor 0 Nicotinic ß4 receptor 0
Tested applications	**Suitable for:** ELISA, ICC/IF, IHC-P, WB, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Rat, Chicken, Human, Chimpanzee, Pufferfish, Zebrafish, Snail
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**) Run BLAST with Run BLAST with
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.

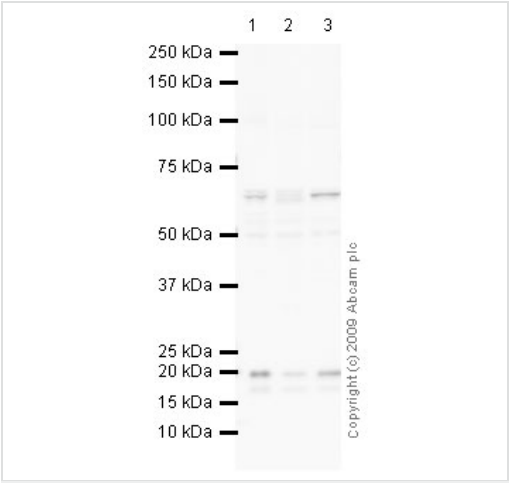
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		1/250.
WB		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.
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.

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.
Cellular localization	Cell junction > synapse > postsynaptic cell membrane. Cell membrane.

Images



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

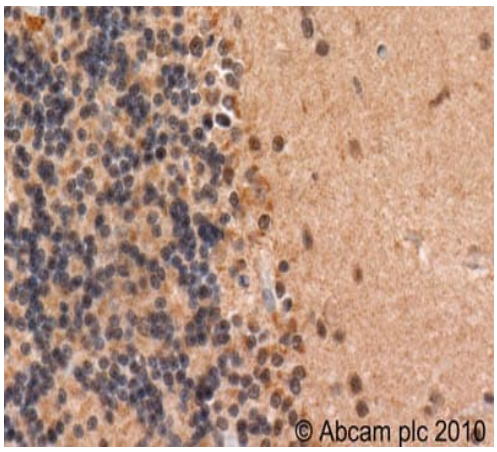
All lanes : Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody (ab41172) at 1/800 dilution

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nicotinic Acetylcholine Receptor alpha 4/CHRNA4 antibody (ab41172)

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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