

Product datasheet

Anti-KCNC1 antibody ab21841

[1 Image](#)

Overview

Product name	Anti-KCNC1 antibody
Description	Mouse polyclonal to KCNC1
Host species	Mouse
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse Predicted to work with: Rat, Rabbit, Cow, Human

Immunogen	Fusion protein: GRKPLRGMSI , corresponding to amino acids 502/511 of Mouse KCNC1a. Run BLAST with Run BLAST with
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General notes Produced from outbred CD1 mice

This antibody was raised by a genetic immunization technique. Genetic immunization can be used to generate antibodies by directly delivering antigen-coding DNA into the animal, rather than injecting a protein or peptide (Tang *et al.* [PubMed: 1545867](#); Chambers and Johnston [PubMed: 12910245](#); Barry and Johnston [PubMed: 9234514](#)). The animal's cells produce the protein, which stimulates the animal's immune system to produce antibodies against that particular protein. A vector coding for a partial fusion protein was used for genetic immunisation of a mouse and the resulting serum was tested in Western blot against an *E.coli* lysate containing that partial fusion protein. Genetic immunization offers enormous advantages over the traditional protein-based immunization method. DNA is faster, cheaper and easier to produce and can be produced by standard techniques readily amenable to automation. Furthermore, the antibodies generated by genetic immunization are usually of superior quality with regard to specificity, affinity and recognizing the native protein.

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 long term.
Storage buffer	Constituents: 50% Glycerol
Purity	Whole antiserum

Primary antibody notes

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Clonality

Polyclonal

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab21841** 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
WB		1/1000. Predicted molecular weight: 57 kDa. This antibody has been tested in Western blot against an <i>E.coli</i> lysate containing the partial recombinant fusion protein used as an immunogen. We have no data on detection of endogenous protein.

Target

Function

Mediates the voltage-dependent potassium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a potassium-selective channel through which potassium ions may pass in accordance with their electrochemical gradient. Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNC2, and possibly other family members as well. Contributes to fire sustained trains of very brief action potentials at high frequency in pallidal neurons.

Involvement in disease

Epilepsy, progressive myoclonic 7

Sequence similarities

Belongs to the potassium channel family. C (Shaw) (TC 1.A.1.2) subfamily. Kv3.1/KCNC1 sub-subfamily.

Domain

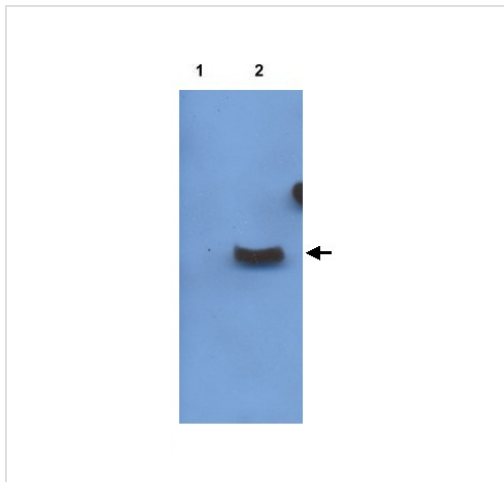
The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.

The tail may be important in modulation of channel activity and/or targeting of the channel to specific subcellular compartments.

Cellular localization

Cell membrane.

Images



Western blot - KCNC1a antibody (ab21841)

All lanes : Anti-KCNC1 antibody (ab21841)
at 1/1000 dilution

Lane 1 : Total protein extract from E. coli with
~50ng to 100ng of a
negative control fusion protein with an
irrelevant antigen at 20 ug

Lane 2 : Total protein extract from E. coli with
~50ng to 500ng of the
antigen fusion protein at 20 ug

Secondary

All lanes : Rabbit anti-mouse IgG + IgM,
(H+L) horseradish peroxidase conjugated at
1/5000 dilution

Predicted band size: 57 kDa

The molecular weight of the band on the western blot does not correspond to the predicted band size above (predicted from the molecular weight of the natural protein) because of the additional mass of the fusion and because the fusion protein only contains a partial fragment of the gene.

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