

Product datasheet

Anti-KCNC1 antibody ab21841

1 Image

Overview

<b>Product name</b>	Anti-KCNC1 antibody
<b>Description</b>	Mouse polyclonal to KCNC1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse <b>Predicted to work with:</b> Rat, Rabbit, Cow, Human 
<b>Immunogen</b>	Fusion protein: GRKPLRGMSI , corresponding to amino acids 502/511 of Mouse KCNC1a.  <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>General notes</b>	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

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Storage buffer</b>	Constituent: 50% Glycerol
<b>Purity</b>	Whole antiserum

## Primary antibody notes

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.

## 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.

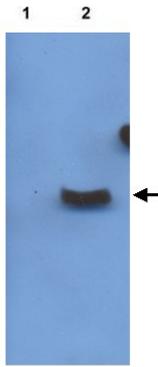
### Domain

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 - Anti-KCNC1 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.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

#### **Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

#### **Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors