

Product datasheet

Anti-Kv1.1 potassium channel antibody [K20/78] ab252537

Recombinant

[5 Images](#)

Overview

Product name	Anti-Kv1.1 potassium channel antibody [K20/78]
Description	Mouse monoclonal [K20/78] to Kv1.1 potassium channel
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P Unsuitable for: ICC or IHC-Fr
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse and rat hippocampus tissue lysate. IHC-P: Mouse hippocampus tissue. Rat pancreas and hippocampus tissue.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p>

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. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	K20/78

Isotype

IgG2b

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab252537 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: 56 kDa.
IHC-P		1/5000.

Application notes

Is unsuitable for ICC or IHC-Fr.

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.

Involvement in disease

Defects in KCNA1 are the cause of episodic ataxia type 1 (EA1) [MIM:160120]; also known as paroxysmal or episodic ataxia with myokymia (EAM) or paroxysmal ataxia with neuromyotonia. EA1 is an autosomal dominant disorder characterized by brief episodes of ataxia and dysarthria. Neurological examination during and between the attacks demonstrates spontaneous, repetitive discharges in the distal musculature (myokymia) that arise from peripheral nerve. Nystagmus is absent.

Defects in KCNA1 are the cause of myokymia isolated type 1 (MK1) [MIM:160120]. Myokymia is a condition characterized by spontaneous involuntary contraction of muscle fiber groups that can be observed as vermiform movement of the overlying skin. Electromyography typically shows continuous motor unit activity with spontaneous oligo- and multiplet-discharges of high intraburst frequency (myokymic discharges). Isolated spontaneous muscle twitches occur in many persons and have no grave significance.

Sequence similarities

Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily. Kv1.1/KCNA1 sub-subfamily.

Domain

The N-terminus may be important in determining the rate of inactivation of the channel while the tail may play a role in modulation of channel activity and/or targeting of the channel to specific subcellular compartments.

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

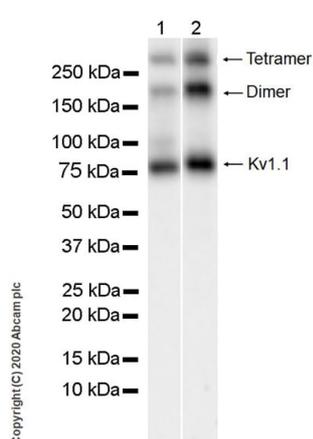
Post-translational modifications

Palmitoylated on Cys-243; which may be required for membrane targeting.

Cellular localization

Membrane.

Images



Western blot - Anti-Kv1.1 potassium channel antibody [K20/78] (ab252537)

All lanes : Anti-Kv1.1 potassium channel antibody [K20/78] (ab252537) at 1/1000 dilution

Lane 1 : Mouse hippocampus tissue lysate

Lane 2 : Rat hippocampus tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

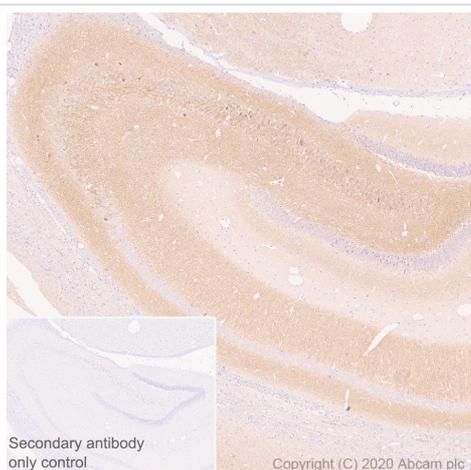
Predicted band size: 56 kDa

Exposure time: 37 seconds

The molecular weight observed is consistent with what has been described in the literature (PMID: 31978607, 20805574, 24498366).

Samples are non-boiled as boiling may cause protein aggregates.

Blocking/dilution buffer: 5% NFDM/TBST.

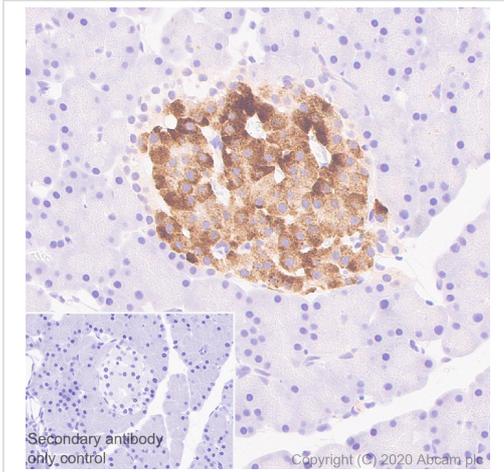


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kv1.1 potassium channel antibody [K20/78] (ab252537)

Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue labeling Kv1.1 potassium channel with ab252537 at 1/1000 followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on rat hippocampus. The section was incubated with ab252537 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kv1.1 potassium channel antibody [K20/78] (ab252537)

Immunohistochemical analysis of paraffin-embedded rat pancreas tissue labeling Kv1.1 potassium channel with ab252537 at 1/1000 followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on rat pancreas islet. The section was incubated with ab252537 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kv1.1 potassium channel antibody [K20/78] (ab252537)

Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue labeling Kv1.1 potassium channel with ab252537 at 1/1000 followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on mouse hippocampus. The section was incubated with ab252537 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

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(ab252537)

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

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