


Product datasheet

Anti-KCNA5/KV1-5 antibody ab110469

[1 References](#) [1 Image](#)

Overview

Product name	Anti-KCNA5/KV1-5 antibody
Description	Rabbit polyclonal to KCNA5/KV1-5
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide corresponding to Human KCNA5/KV1-5 (internal sequence). Database link: P22460
Positive control	Extracts from 293 cells.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Purification notes	ab110469 was affinity purified from Rabbit antiserum by affinity chromatography using epitope specific immunogen.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab110469 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		1/500 - 1/1000. Predicted molecular weight: 67 kDa.

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. This channel displays rapid activation and slow inactivation. May play a role in regulating the secretion of insulin in normal pancreatic islets. Isoform 2 exhibits a voltage-dependent recovery from inactivation and an excessive cumulative inactivation.

Tissue specificity

Pancreatic islets and insulinoma.

Involvement in disease

Defects in KCNA5 are the cause of atrial fibrillation familial type 7 (ATFB7) [MIM:612240]. Atrial fibrillation is a common disorder of cardiac rhythm that is hereditary in a small subgroup of patients. It is characterized by disorganized atrial electrical activity, progressive deterioration of atrial electromechanical function and ineffective pumping of blood into the ventricles. It can be associated with palpitations, syncope, thromboembolic stroke, and congestive heart failure.

Sequence similarities

Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily. Kv1.5/KCNA5 sub-subfamily.

Domain

The amino terminus may be important in determining the rate of inactivation of the channel while the C-terminal PDZ-binding motif 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.

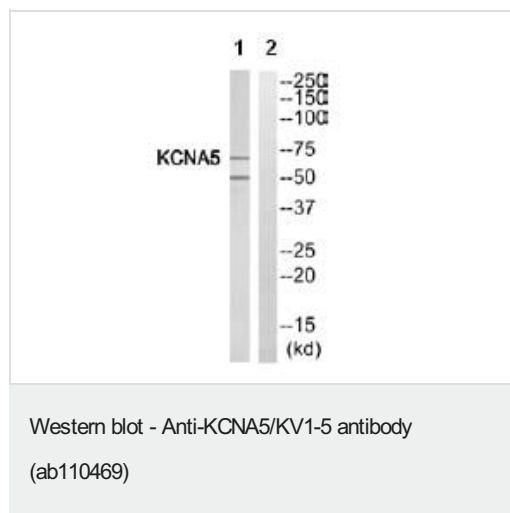
Post-translational modifications

Sumoylated on Lys-221, and Lys-536, preferentially by SUMO3. Sumoylation regulates the voltage sensitivity of the channel.

Cellular localization

Membrane.

Images



All lanes : Anti-KCNA5/KV1-5 antibody (ab110469) at 1/500 dilution

Lane 1 : Extracts from 293 cells

Lane 2 : Extracts from 293 cells, treated with synthesized peptide

Lysates/proteins at 30 µg per lane.

Predicted band size: 67 kDa

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

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