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Anti-Kv1.4 Picoband Antibody
Catalog # ABO12493

Specification

Anti-Kv1.4 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P22459
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Potassium voltage-gated channel subfamily A member 4(KCNA4) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Kv1.4 Picoband Antibody - Additional Information

Gene ID 3739

Other Names
Potassium voltage-gated channel subfamily A member 4, HPCN2, Voltage-gated K(+) channel HuKII, Voltage-gated potassium channel HBK4, Voltage-gated potassium channel HK1, Voltage-gated potassium channel subunit Kv1.4, KCNA4, KCNA4L

Calculated MW
73257 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cell membrane ; Multi-pass membrane protein . Cell projection, axon .

Tissue Specificity
Detected in heart ventricle. .

Protein Name
Potassium voltage-gated channel subfamily A member 4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human Kv1.4 (609-647aa SEYLEMEEGVKESLCAKEEKCQGKGDDSETDKNNCSNAK), different from the related mouse sequence

by two amino acids, and from the related rat sequence by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-Kv1.4 Picoband Antibody - Protein Information

Name KCNA4

Synonyms KCNA4L

Function
Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes. Forms tetrameric potassium- selective channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane (PubMed:19912772, PubMed:8495559). Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel (PubMed:8495559). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation. In vivo, membranes probably contain a mixture of heteromeric potassium channel complexes, making it difficult to assign currents observed in intact tissues to any particular potassium channel family member. Homotetrameric KCNA4 forms a potassium channel that opens in response to membrane depolarization, followed by rapid spontaneous channel closure (PubMed:19912772, PubMed:8495559). Likewise, a heterotetrameric channel formed by KCNA1 and KCNA4 shows rapid inactivation (PubMed:17156368).

Cellular Location
Cell membrane; Multi-pass membrane protein Cell projection, axon {ECO:0000250|UniProtKB:P15385}

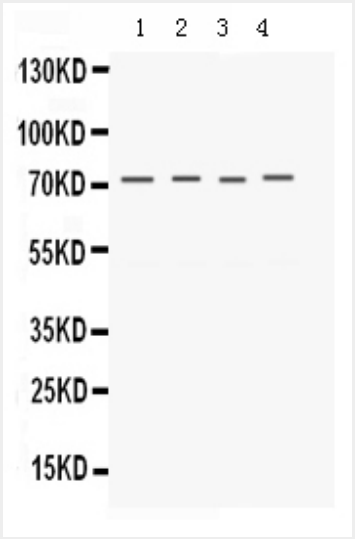
Tissue Location
Expressed in brain, and at lower levels in the testis, lung, kidney, colon and heart (PubMed:27582084). Detected in heart ventricle.

Anti-Kv1.4 Picoband Antibody - Protocols

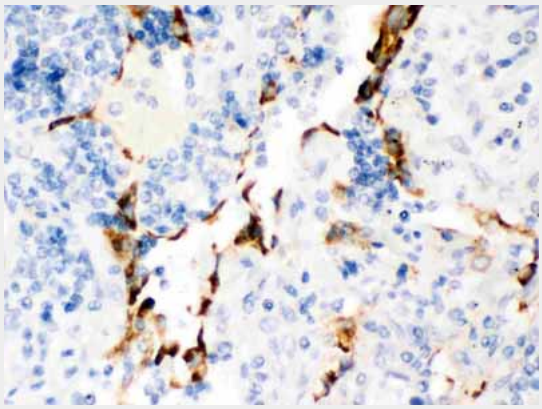
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Kv1.4 Picoband Antibody - Images



Anti- Kv1.4 Picoband antibody, ABO12493, Western blottingAll lanes: Anti Kv1.4 (ABO12493) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: COLO320 Whole Cell Lysate at 40ugLane 3: HT1080 Whole Cell Lysate at 40ugLane 4: PANC Whole Cell Lysate at 40ugPredicted bind size: 73KDObserved bind size: 73KD



Anti- Kv1.4 Picoband antibody, ABO12493, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-Kv1.4 Picoband Antibody - Background

Potassium voltage-gated channel subfamily A member 4, also known as Kv1.4 or PCN2, is a protein that in humans is encoded by the KCNA4 gene. This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. It is mapped to 11p14.1. KCNA4 belongs to the A-type potassium current class, the members of which may be important in the regulation of the fast repolarizing phase of action potentials in heart and thus may influence the duration of cardiac action potential. KCNA4 also contributes to the cardiac transient outward potassium current (Ito1),

the main contributing current to the repolarizing phase 1 of the cardiac action potential. This gene has been shown to interact with DLG4, KCNA2 and DLG1.