



KV1.1 Polyclonal Antibody

Catalog No	YP-Ab-16448
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;ELISA;IHC
Gene Name	KCNA1
Protein Name	Potassium voltage-gated channel subfamily A member 1
Immunogen	The antiserum was produced against synthesized peptide derived from human KCNA1. AA range:256-305
Specificity	KV1.1 Polyclonal Antibody detects endogenous levels of KV1.1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	KCNA1; Potassium voltage-gated channel subfamily A member 1; Voltage-gated K(+) channel HuK1; Voltage-gated potassium channel HBK1; Voltage-gated potassium channel subunit Kv1.1
Observed Band	57kD
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Membrane . Cell projection, axon . Cytoplasmic vesicle . Perikaryon . Endoplasmic reticulum . Cell projection, dendrite . Cell junction . Cell junction, synapse . Cell junction, synapse, presynaptic cell membrane . Cell junction, synapse, presynapse . Homotetrameric KCNA1 is primarily located in the endoplasmic reticulum. Interaction with KCNA2 and KCNAB2 or with KCNA4 and KCNAB2 promotes expression at the cell membrane (By similarity). .
Tissue Specificity	Detected adjacent to nodes of Ranvier in juxtaparanodal zones in spinal cord nerve fibers, but also in paranodal regions in some myelinated spinal cord axons (at protein level) (PubMed:11086297). Detected in the islet of Langerhans (PubMed:21483673).
Function	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. disease: 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).

Background

This gene encodes a voltage-gated delayed potassium channel that is phylogenetically related to the Drosophila Shaker channel. The encoded protein has six putative transmembrane segments (S1-S6), and the loop between S5 and S6 forms the pore and contains the conserved selectivity filter motif (GYGD). The functional channel is a homotetramer. The N-terminus of the channel is associated with beta subunits that can modify the inactivation properties of the channel as well as affect expression levels. The C-terminus of the channel is complexed to a PDZ domain protein that is responsible for channel targeting. Mutations in this gene have been associated with myokymia with periodic ataxia (AEMK). [provided by RefSeq, Jul 2008],

matters needing attention

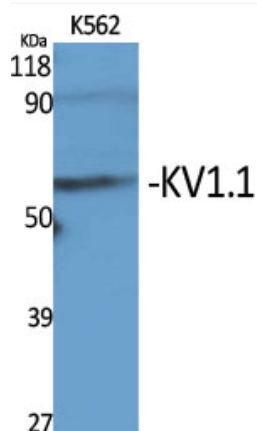
Avoid repeated freezing and thawing!

Usage suggestions

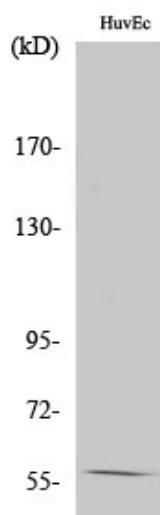
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



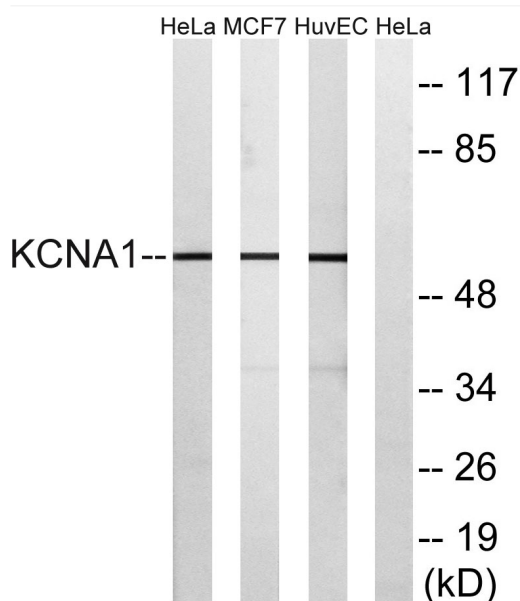
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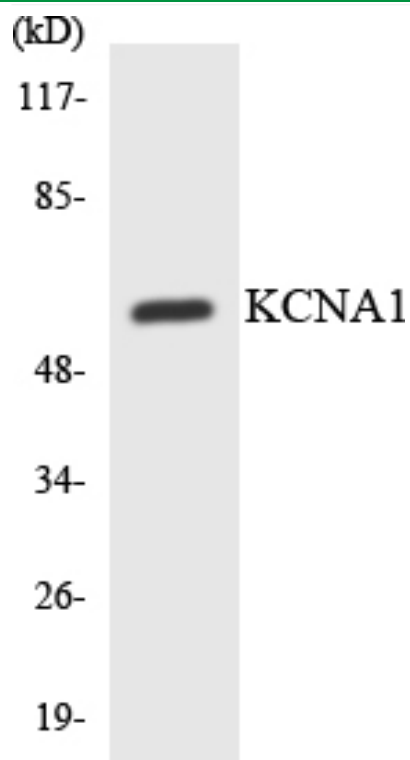
Western Blot analysis of various cells using KV1.1 Polyclonal Antibody diluted at 1:2000



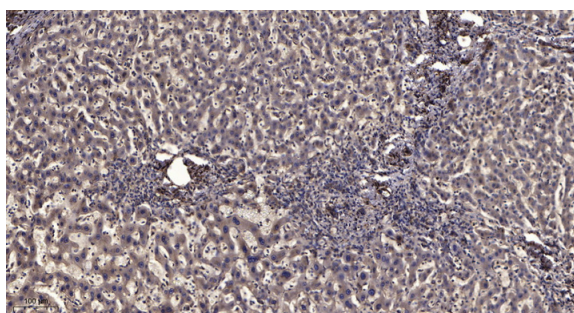
Western Blot analysis of HeLa cells using KV1.1 Polyclonal Antibody diluted at 1:2000



Western blot analysis of lysates from HUVEC, MCF-7, and HeLa cells, using KCNA1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HepG2 cells using KCNA1 antibody.



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).