

Rabbit KCNA1 Polyclonal Antibody | anti-KCNA1 antibody

KCNA1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA232549	Rabbit	Human, Mouse, Rat	Immunofluorescence, Western Blot, ELISA

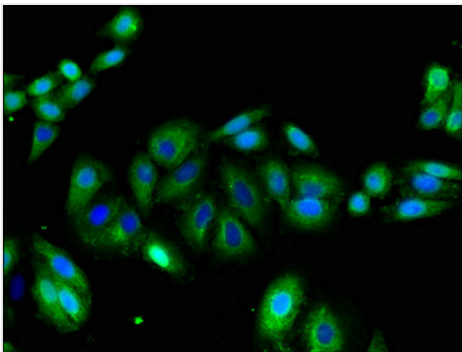
PRODUCT SYNONYMS

KCNA1; Polyclonal Antibody; KCNA1 Antibody; 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); anti-KCNA1 antibody

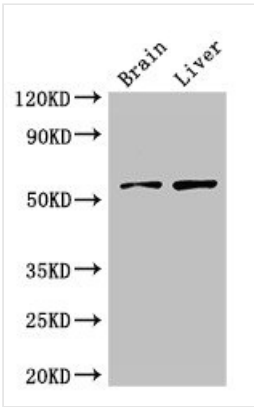
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	>95%, Protein G purified
Form/Format	Liquid
Sequence Length	495
Applicable Applications for anti-KCNA1 antibody	IF (Immunofluorescence), WB (Western Blot), ELISA
Immunogen	Recombinant Human Potassium voltage-gated channel subfamily A member 1 protein (7-150AA)
Immunogen Species	Homo Sapien (Human)
Research Area	Neuroscience
Target Names	KCNA1
Storage Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
Conjugation	Non-conjugated
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-11182 / sc-11184 / sc-25680
Preparation and Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

IMAGES



IF (Immunofluorescence)
Immunofluorescent analysis of HepG2 cells using AAA232549 at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



WB (Western Blot)
Western BlotPositive WB detected in: Mouse brain tissue,Rat liver tissueAll lanes: KCNA1 antibody at 3ug/mlSecondaryGoat polyclonal to rabbit IgG at 1/50000 dilutionPredicted band size: 57 KDaObserved band size: 57 KDa

ADDITIONAL INFORMATION

Related Product Information for anti-KCNA1 antibody

Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes, primarily in the brain and the central nervous system, but also in the kidney (PubMed: 19903818). Contributes to the regulation of the membrane potential and nerve signaling, and prevents neuronal hyperexcitability (PubMed: 17156368). 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). Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, KCNA6, KCNA7, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel (PubMed: 12077175, PubMed: 17156368). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation of delayed rectifier potassium channels (PubMed: 12077175, PubMed: 17156368). 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 KCNA1 forms a delayed-rectifier potassium channel that opens in response to membrane depolarization, followed by slow spontaneous channel closure (PubMed: 19912772, PubMed: 19968958, PubMed: 19307729, PubMed: 19903818). In contrast, a heterotetrameric channel formed by KCNA1 and KCNA4 shows rapid inactivation (PubMed: 17156368). Regulates neuronal excitability in hippocampus, especially in mossy fibers and medial perforant path axons, preventing neuronal hyperexcitability. Response to toxins that are selective for KCNA1, respectively for KCNA2, suggests that heteromeric potassium channels composed of both KCNA1 and KCNA2 play a role in pacemaking and regulate the output of deep cerebellar nuclear neurons (By similarity). May function as down-stream effector for G protein-coupled receptors and inhibit GABAergic inputs to basolateral amygdala neurons (By similarity). May contribute to the regulation of neurotransmitter release, such as gamma-aminobutyric acid (GABA) release (By similarity). Plays a role in regulating the generation of action potentials and preventing hyperexcitability in myelinated axons of the vagus nerve, and thereby contributes to the regulation of heart contraction (By similarity). Required for normal neuromuscular responses (PubMed: 11026449, PubMed: 17136396). Regulates the frequency of neuronal action potential firing in response to mechanical stimuli, and plays a role in the perception of pain caused by mechanical stimuli, but does not play a role in the perception of pain due to heat stimuli (By similarity). Required for normal responses to auditory stimuli and precise location of sound sources, but not for sound perception (By similarity). The use of toxins that block specific channels suggest that it contributes to the regulation of the axonal release of the neurotransmitter dopamine (By similarity). Required for normal postnatal brain development and normal proliferation of neuronal precursor cells in the brain (By similarity). Plays a role in the reabsorption of Mg(2+) in the distal convoluted tubules in the kidney and in magnesium ion homeostasis, probably via its effect on the membrane potential (PubMed: 23903368, PubMed: 19307729).

NCBI AND UNIPROT INFORMATION

NCBI GI #	119395748
NCBI GeneID	3736

NCBI Accession #	NP_000208.2
NCBI GenBank Nucleotide #	NM_000217.2
UniProt Accession #	Q09470 ; Q3MIQ9 ; A6NM83
NCBI Official Full Name	potassium voltage-gated channel subfamily A member 1
NCBI Official Synonym Full Names	potassium voltage-gated channel subfamily A member 1
NCBI Official Symbol	KCNA1
NCBI Official Synonym Symbols	EA1; MK1; AEMK; HBK1; HUK1; MBK1; RBK1; KV1.1
NCBI Protein Information	potassium voltage-gated channel subfamily A member 1
UniProt Protein Name	Potassium voltage-gated channel subfamily A member 1
UniProt Gene Name	KCNA1
UniProt Entry Name	KCNA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/kcna1-antibody-immunofluorescence-western-blot-elisa/232549>