

Rabbit KCNA5 Polyclonal Antibody | anti-KCNA5 antibody

KCNA5 Antibody

CATALOG # AAA324970	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunocytochemistry, Immunofluorescence, Western Blot
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PRODUCT SYNONYMS

KCNA5; Polyclonal Antibody; KCNA5 Antibody; ATFB7; cardiac potassium channel; HCK1; HK2; HPCN1; insulinoma and islet potassium channel; KCNA5_HUMAN; KV1.5; PCN1; potassium channel 1; Potassium channel; insulinoma and islet cell; voltage-gated; shaker-related subfamily; member 5; Potassium voltage gated channel subfamily A member 5; Potassium voltage-gated channel subfamily A member 5; Voltage-gated potassium channel HK2; voltage-gated potassium channel protein Kv1.5; Voltage-gated potassium channel subunit Kv1.5; anti-KCNA5 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	KCNA5 antibody detects endogenous levels of total KCNA5
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	613
Applicable Applications for anti-KCNA5 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Membrane.
Tissue Specificity	Pancreatic islets and insulinoma.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Dog
Similarity	Pig (100%), Bovine (100%), Horse (100%), Rabbit (90%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts from 293 cells, using KCNA5 antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA324970 staining 293 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-KCNA5 antibody

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. 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:12130714). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation (PubMed:12130714). Homotetrameric channels display rapid activation and slow inactivation (PubMed:8505626, PubMed:12130714). 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 (PubMed:11524461).

Subunit Structure: Homotetramer and heterotetramer of potassium channel proteins. Interacts with DLG1, which enhances channel currents. Forms a ternary complex with DLG1 and CAV3 (By similarity). Interacts with KCNAB1 (PubMed:12130714). Interacts with UBE2I (PubMed:17261810).

Post-translational Modifications: Sumoylated on Lys-221, and Lys-536, preferentially with SUMO3. Sumoylation regulates the voltage sensitivity of the channel.

Similarity: 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 transmembrane segment S4 functions as voltage-sensor and is characterized by a series of positively charged amino acids at every third position. Channel opening and closing is effected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by S3 and S4 within the membrane. A transmembrane electric field that is positive inside would push the positively charged S4 segment outwards, thereby opening the pore, while a field that is negative inside would pull the S4 segment inwards and close the pore. Changes in the position and orientation of S4 are then transmitted to the activation gate formed by the inner helix bundle via the S4-S5 linker region. Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily. Kv1.5/KCNA5 sub-subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	25952087
NCBI GeneID	3741
NCBI Accession #	NP_002225.2
NCBI GenBank Nucleotide #	NM_002234.3
UniProt Accession #	P22460; Q4KKT8; Q4VAJ1; Q4VAJ2; Q9UDA4
Molecular Weight	Observed: 68 kD Predicted: 68 kDa
NCBI Official Full Name	potassium voltage-gated channel subfamily A member 5
NCBI Official Synonym Full Names	potassium voltage-gated channel subfamily A member 5
NCBI Official Symbol	KCNA5
NCBI Official Synonym Symbols	HK2; HCK1; PCN1; ATFB7; HPCN1; KV1.5

NCBI Protein Information	potassium voltage-gated channel subfamily A member 5
UniProt Protein Name	Potassium voltage-gated channel subfamily A member 5
UniProt Gene Name	KCNA5

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://stage.aaabiotech.com/polyclonal/kcna5-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/324970>