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KCNN2 antibody - C-terminal region
Rabbit Polyclonal Antibody
Catalog # AI10786

Specification

KCNN2 antibody - C-terminal region - Product Information

Application	**WB, IHC**
Primary Accession	Q9H2S1
Other Accession	NM_021614, NP_067627
Reactivity	**Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Yeast, Bovine, Dog**
Predicted	**Human, Mouse, Rat, Rabbit, Pig, Chicken, Horse, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**64kDa KDa**

KCNN2 antibody - C-terminal region - Additional Information

Gene ID 3781

Alias Symbol	**SK2, hSK2, SKCA2, KCa2.2**

Other Names
Small conductance calcium-activated potassium channel protein 2, SK2, SKCa 2, SKCa2, KCa2.2, KCNN2

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 100 ul of distilled water. Final anti-KCNN2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
KCNN2 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

KCNN2 antibody - C-terminal region - Protein Information

Name KCNN2 (HGNC:6291)

Function
Small conductance calcium-activated potassium channel that mediates the voltage-independent transmembrane transfer of potassium across the cell membrane through a constitutive interaction with calmodulin which binds the intracellular calcium allowing its opening (PubMed:10991935, PubMed:33242881, PubMed:9287325). The current is

characterized by a voltage-independent activation, an intracellular calcium concentration increase-dependent activation and a single- channel conductance of about 3 picosiemens (PubMed:10991935). Also presents an inwardly rectifying current, thus reducing its already small outward conductance of potassium ions, which is particularly the case when the membrane potential displays positive values, above + 20 mV (PubMed:10991935). The inward rectification could be due to a blockade of the outward current by intracellular divalent cations such as calcium and magnesium and could also be due to an intrinsic property of the channel pore, independent of intracellular divalent ions. There are three positively charged amino acids in the S6 transmembrane domain, close to the pore, that collectively control the conductance and rectification through an electrostatic mechanism. Additionally, electrostatic contributions from these residues also play an important role in determining the intrinsic open probability of the channel in the absence of calcium, affecting the apparent calcium affinity for activation. Forms an heteromeric complex with calmodulin, which is constitutively associated in a calcium-independent manner. Channel opening is triggered when calcium binds the calmodulin resulting in a rotary movement leading to the formation of the dimeric complex to open the gate (By similarity). Plays a role in the repolarization phase of cardiac action potential (PubMed:13679367).

Cellular Location
Membrane; Multi-pass membrane protein. Cytoplasm, myofibril, sarcomere, Z line {ECO:0000250|UniProtKB:P58390}

Tissue Location
Expressed in atrial myocytes (at protein level) (PubMed:13679367). Widely expressed.

KCNN2 antibody - C-terminal region - 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

KCNN2 antibody - C-terminal region - Images

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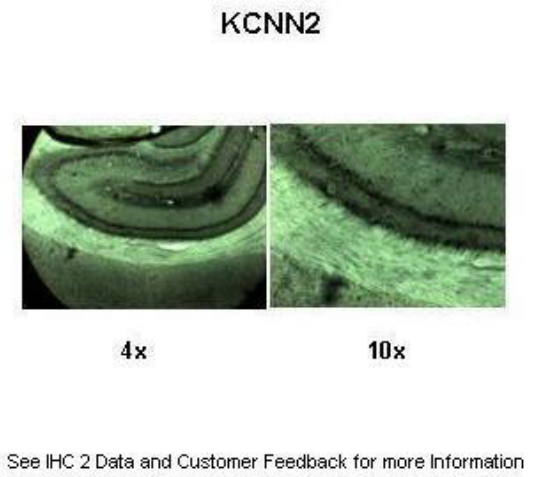
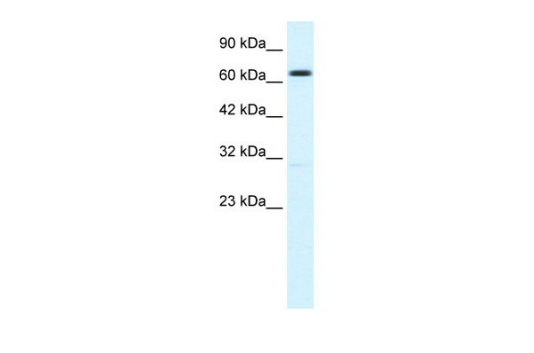


See IHC 2 Data and Customer Feedback for more Information

Lanes: Rat brain section
Primary Antibody Dilution: 1:500
Secondary Antibody: Anti-rabbit-biotin, streptavidin-diaminobenzidine
Secondary Antibody Dilution: 1:500
Gene Name: KCNN2
Submitted by: Dr. Amiel Rosenkranz, Rosalind Franklin University



WB Suggested Anti-KCNN2 Antibody Titration: 1.25µg/ml
ELISA Titer: 1:62500
Positive Control: HepG2 cell lysate

KCNN2 antibody - C-terminal region - References

Feranchak,A.P., et al., (2004) Gastroenterology 127 (3), 903-913Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.Publications:Chakroborty, S. et al. Early presynaptic and postsynaptic calcium signaling abnormalities mask underlying synaptic depression in presymptomatic Alzheimer’s disease mice. J. Neurosci. 32, 8341-53 (2012). WB, IHC, Human, Yeast, Zebrafish, Mouse, Rat, Bovine, Dog, Pig, H, Rabbit, Guinea pig22699914