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KCNN3 (SK3) Polyclonal Antibody

Catalog # AP63694

Product Information

Application	IHC-P
Primary Accession	Q9UGI6
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	81385

Additional Information

Gene ID	3782
Other Names	Small conductance calcium-activated potassium channel protein 3 (SK3) (SKCa 3) (SKCa3) (KCa2.3)
Dilution	IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

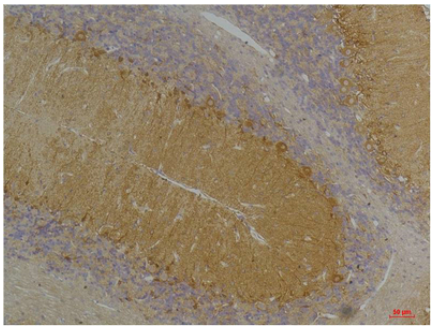
Name	KCNN3 (HGNC:6292)
Synonyms	K3
Function	Small conductance calcium-activated potassium channel that mediates the voltage-independent transmembrane transfer of potassium across the cell membrane through a constitutive interaction with calmodulin which binds the intracellular calcium allowing its opening (PubMed:12808432, PubMed:20562108, PubMed:31155282, PubMed:36502918). The current is characterized by a voltage-independent activation, an intracellular calcium concentration increase-dependent activation and a single-channel conductance of 10 picosiemens (PubMed:12808432, PubMed:20562108, PubMed:31155282, PubMed:36502918). 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:12808432). Activation is followed by membrane hyperpolarization. Thought to regulate neuronal excitability by contributing to the slow component of synaptic afterhyperpolarization (By similarity).

Cellular Location	Cell membrane; Multi-pass membrane protein. Cytoplasm, myofibril, sarcomere, Z line {ECO:0000250|UniProtKB:P58391}
Tissue Location	[Isoform 3]: Widely distributed in human tissues and is present at 20-60% of KCNN3 in the brain

Background

Forms a voltage-independent potassium channel activated by intracellular calcium. Activation is followed by membrane hyperpolarization. Thought to regulate neuronal excitability by contributing to the slow component of synaptic afterhyperpolarization. The channel is blocked by apamin.

Images



Immunohistochemical analysis of paraffin-embedded Rat BrainTissue using KCNN3(SK3) Rabbit pAb diluted at 1:200.