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KCNK10 (TREK-2) Polyclonal Antibody

Catalog # AP63687

Product Information

Application	WB, IHC-P
Primary Accession	P57789
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59765

Additional Information

Gene ID	54207
Other Names	Potassium channel subfamily K member 10 (Outward rectifying potassium channel protein TREK-2) (TREK-2 K(+) channel subunit)
Dilution	WB~~WB 1:1000-2000, IHC 1:100-200 IHC-P~~WB 1:1000-2000, IHC 1:100-200
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

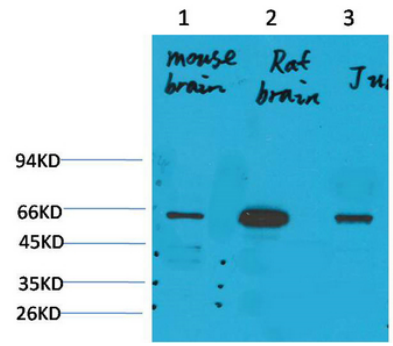
Name	KCNK10 {ECO:0000303|PubMed:25766236, ECO:0000312|HGNC:HGNC:6273}
Function	K(+) channel that conducts voltage-dependent outward rectifying currents upon membrane depolarization. Voltage sensing is coupled to K(+) electrochemical gradient in an 'ion flux gating' mode where outward but not inward ion flow opens the gate. Converts to voltage-independent 'leak' conductance mode upon stimulation by various stimuli including mechanical membrane stretch, acidic pH, heat and lipids (PubMed:10880510, PubMed:25766236, PubMed:26919430, PubMed:38605031). Homo- and heterodimerizes to form functional channels with distinct regulatory and gating properties (PubMed:30573346). In trigeminal ganglia sensory neurons, the heterodimer of KCNK10/TREK-2 and KCNK18/TRESK inhibits neuronal firing and neurogenic inflammation by stabilizing the resting membrane potential at K(+) equilibrium potential as well as by regulating the threshold of action potentials and the spike frequency (By similarity). Permeable to other monovalent ions such as Rb(+) and Cs(+) (PubMed:26919430).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q8BUW1}; Multi-pass membrane protein

Tissue Location	[Isoform A]: Abundantly expressed in pancreas and kidney and to a lower level in brain, testis, colon, and small intestine. In brain, mainly expressed in cerebellum, occipital lobe, putamen, and thalamus. No expression is detected in amygdala and spinal cord. [Isoform C]: Abundantly expressed in brain.

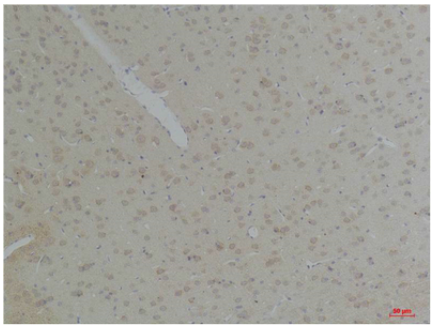
Background

Outward rectifying potassium channel. Produces rapidly activating and non-inactivating outward rectifier K(+) currents. Activated by arachidonic acid and other naturally occurring unsaturated free fatty acids.

Images



Western blot analysis of 1) Mouse BrainTissue, 2)Rat Brain Tissue, 3) Jurkat with KCNK10(TREK-2) Rabbit pAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Rat BrainTissue using KCNK10 (TREK-2) Rabbit pAb diluted at 1:200.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.