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Anti-KCNN4 Antibody

Catalog # AP95904

Product Information

Application	WB, FC
Primary Accession	O15554
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	47696

Additional Information

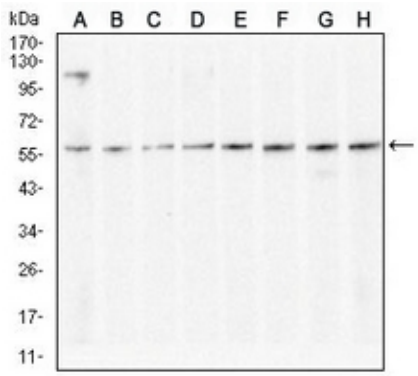
Gene ID	3783
Other Names	IK1; IKCA1; KCA4; SK4; Intermediate conductance calcium-activated potassium channel protein 4; SK4; SKCa 4; SKCa4; IKCa1; IK1; KCa3.1; KCa4; Putative Gardos channel
Target/Specificity	Recombinant fusion protein of human KCNN4 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200)
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

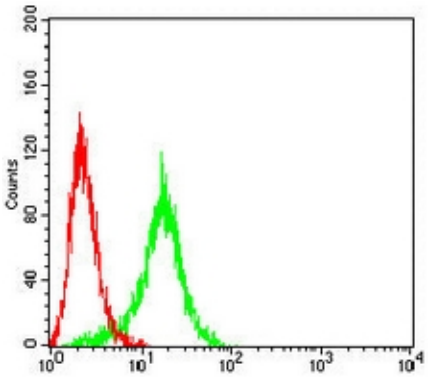
Name	KCNN4 (HGNC:6293)
Synonyms	IK1, IKCA1, KCA4, SK4
Function	Intermediate conductance calcium-activated potassium channel that mediates the voltage-independent transmembrane transfer of potassium across the cell membrane through a constitutive interaction with calmodulin which binds the intracellular calcium allowing its opening (PubMed:10026195, PubMed:10961988, PubMed:11425865, PubMed:15831468, PubMed:17157250, PubMed:18796614, PubMed:26148990, PubMed:9326665, PubMed:9380751, PubMed:9407042). The current is characterized by a voltage-independent activation, an intracellular calcium concentration increase-dependent activation and a single- channel conductance of about 25 picosiemens (PubMed:9326665, PubMed:9380751, PubMed:9407042). 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:9326665, PubMed:9380751, PubMed:9407042). Controls calcium

	influx during vascular contractility by being responsible of membrane hyperpolarization induced by vasoactive factors in proliferative vascular smooth muscle cell types (By similarity). Following calcium influx, the consecutive activation of KCNN4 channel leads to a hyperpolarization of the cell membrane potential and hence an increase of the electrical driving force for further calcium influx promoting sustained calcium entry in response to stimulation with chemotactic peptides (PubMed:26418693). Required for maximal calcium influx and proliferation during the reactivation of naive T-cells (PubMed:17157250, PubMed:18796614). Plays a role in the late stages of EGF-induced macropinocytosis through activation by PI(3)P (PubMed:24591580).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cell projection, ruffle membrane. Note=Targeted to membrane ruffles after EGF stimulation.
Tissue Location	Widely expressed in non-excitable tissues.

Images



Western blot analysis of KCNN4 expression in HepG2 (A), Jurkat (B), Hela (C), MCF7 (D), HEK293 (E), SW480 (F), HT29 (G), SW620 (H) whole cell lysates. (Predicted band size: 48 kD; Observed band size: 57 kD)



Flow cytometric analysis of THP1 cells using Anti-KCNN4 Antibody (green) and negative control (red).

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