10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNN4 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10789

Product Information

Application	WB
Primary Accession	O15554
Other Accession	NM_002250, NP_002241
Reactivity	Human, Rat, Pig, Horse, Bovine
Predicted	Human, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47696

Additional Information

Gene ID	3783
Alias Symbol	IK1, IKCA1, KCA4, KCa3.1, SK4, hIKCa1, hKCa4, hSK4
Other Names	Intermediate conductance calcium-activated potassium channel protein 4, SK4, SKCa 4, SKCa4, IKCa1, IK1, KCa3.1, KCa4, Putative Gardos channel, KCNN4, IK1, IKCA1, KCA4, SK4
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-KCNN4 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	KCNN4 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

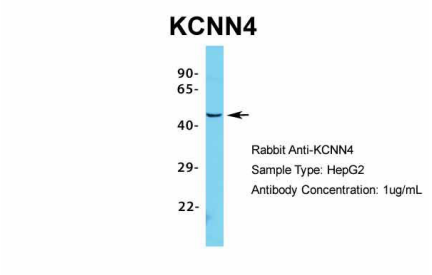
Name	KCNN4 (HGNC:6293)
Synonyms	IK1, IKCA1, KCA4, SK4
Function	Intermediate conductance calcium-activated potassium channel that mediates the voltage-independent transmembrane transfer of potassium across the cell membrane through a constitutive interaction with calmodulin which binds the intracellular 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.

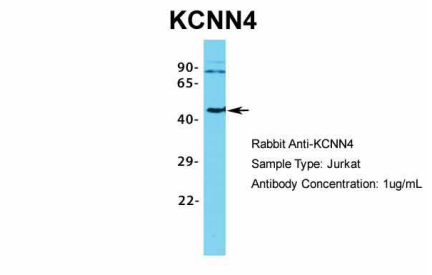
References

Gao,Y., (2008) J. Biol. Chem. 283 (14), 9049-9059 Reconstitution 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.

Images

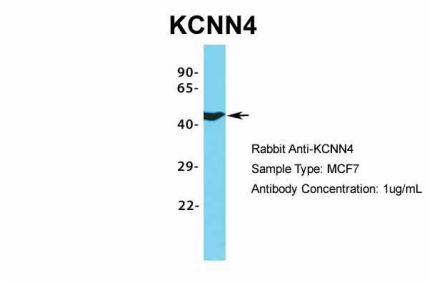


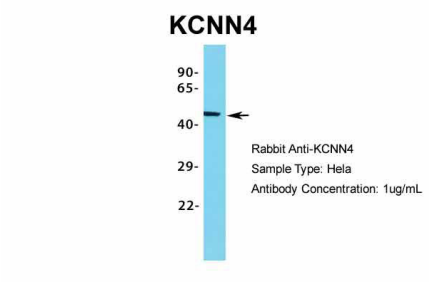
Host: Rabbit
Target Name: KCNN4
Sample Tissue: HepG2
Antibody Dilution: 1.0µg/ml



Host: Rabbit
Target Name: KCNN4
Sample Tissue: Jurkat
Antibody Dilution: 1.0µg/ml

Host: Rabbit
Target Name: KCNN4
Sample Tissue: MCF7
Antibody Dilution: 1.0µg/ml





Host: Rabbit
Target Name: KCNN4
Sample Tissue: Hela
Antibody Dilution: 1.0µg/ml