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KCNN4 antibody - C-terminal region
Rabbit Polyclonal Antibody
Catalog # AI10789

Specification

KCNN4 antibody - C-terminal region - 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	**48kDa KDa**

KCNN4 antibody - C-terminal region - 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.

KCNN4 antibody - C-terminal region - 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.

KCNN4 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

KCNN4 antibody - C-terminal region - Images

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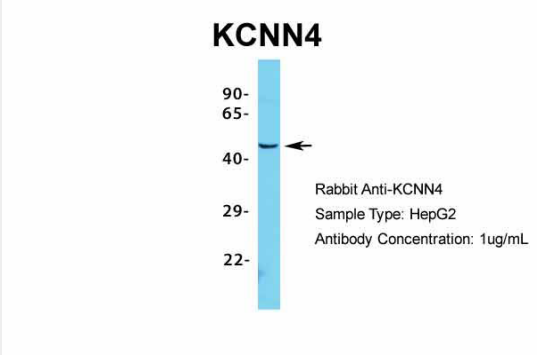
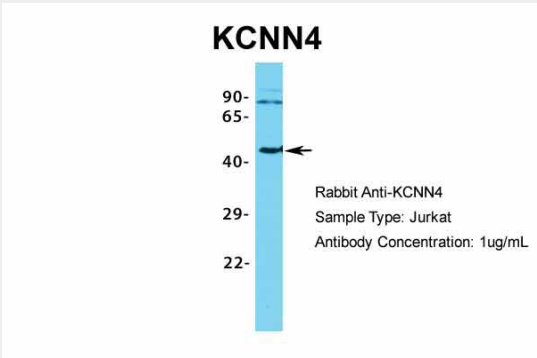
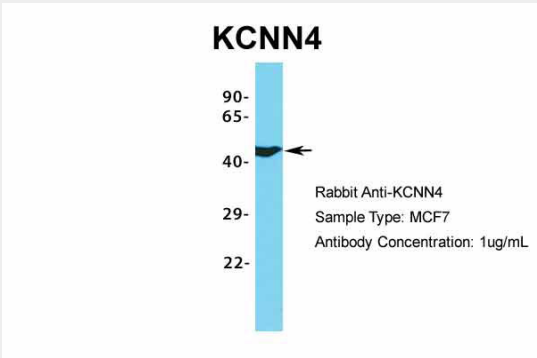


Host: Rabbit
Target Name: KCNN4
Sample Tissue: HepG2
Antibody Dilution: 1.0µg/ml



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

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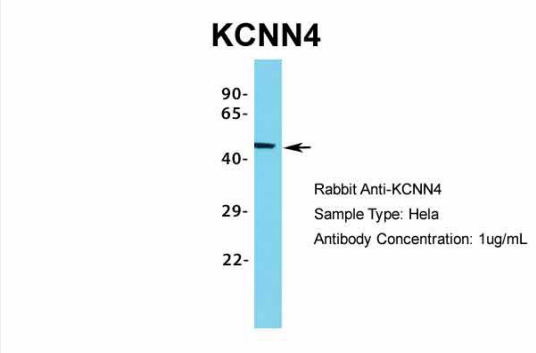

Host: Rabbit
Target Name: KCNN4
Sample Tissue: Hela
Antibody Dilution: 1.0µg/ml

KCNN4 antibody - C-terminal region - 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.