

# KCNE4 Rabbit pAb

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Catalog # AP54761

## Product Information

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| <b>Application</b>             | IHC-P, IHC-F, IF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Primary Accession</b>       | <a href="#">Q8WWG9</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reactivity</b>              | Rat, Mouse, Dog, Horse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Host</b>                    | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Clonality</b>               | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Calculated MW</b>           | 23806                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Physical State</b>          | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Immunogen</b>               | KLH conjugated synthetic peptide derived from human KCNE4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Isotype</b>                 | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>                  | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Buffer</b>                  | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>SUBCELLULAR LOCATION</b>    | Membrane; Single-pass type I membrane protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>SIMILARITY</b>              | Belongs to the potassium channel KCNE family.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>SUBUNIT</b>                 | Associates with KCNQ1/KVLQT1 (Probable).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Important Note</b>          | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Background Descriptions</b> | Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, isk-related subfamily. This member is a type I membrane protein, and a beta subunit that assembles with a potassium channel alpha-subunit to modulate the gating kinetics and enhance stability of the multimeric complex. This gene is prominently expressed in the embryo and in adult uterus. [provided by RefSeq, Jul 2008]. |

## Additional Information

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| <b>Gene ID</b>            | 23704                                                                                                                                                                                                           |
| <b>Other Names</b>        | Potassium voltage-gated channel subfamily E member 4, Mink-related peptide 3, MiRP3, Minimum potassium ion channel-related peptide 3, Potassium channel subunit beta MiRP3, KCNE4 ( <a href="#">HGNC:6244</a> ) |
| <b>Target/Specificity</b> | Predominantly expressed in embryo and adult uterus. Low expression found in kidney, small intestine, lung and heart.                                                                                            |
| <b>Dilution</b>           | IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500                                                                                                                                                   |
| <b>Storage</b>            | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When                                                                                                                                           |

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

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| <b>Name</b>              | KCNE4 ( <a href="#">HGNC:6244</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Function</b>          | Ancillary protein that functions as a regulatory subunit of the voltage-gated potassium (Kv) channel complex composed of pore- forming and potassium-conducting alpha subunits and of regulatory beta subunits. KCNE4 beta subunit modulates the gating kinetics and enhances stability of the channel complex (PubMed: <a href="#">12096056</a> , PubMed: <a href="#">19687231</a> , PubMed: <a href="#">20533308</a> , PubMed: <a href="#">27162025</a> ). Associates with KCNQ1/KVLTQ1 alpha subunit to inhibit potassium currents (PubMed: <a href="#">12096056</a> , PubMed: <a href="#">19687231</a> , PubMed: <a href="#">20533308</a> , PubMed: <a href="#">27162025</a> ). |
| <b>Cellular Location</b> | Membrane; Single- pass membrane protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tissue Location</b>   | Predominantly expressed in embryo and adult uterus. Low expression found in kidney, small intestine, lung and heart                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Background

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Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, Isk-related subfamily. This member is a type I membrane protein, and a beta subunit that assembles with a potassium channel alpha-subunit to modulate the gating kinetics and enhance stability of the multimeric complex. This gene is prominently expressed in the embryo and in adult uterus. [provided by RefSeq, Jul 2008].

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