

## Product datasheet for **AP05125PU-N**

### **Kv1.4 (KCNA4) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	WB
<b>Recommended Dilution:</b>	Western Blot: 5 - 10 µg/ml.
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Synthetic peptide derived from the N-terminus of the rat Kv1.4 potassium channel conjugated to KLH
<b>Specificity:</b>	This antibody reacts to Kv1.4 Potassium Channel.
<b>Formulation:</b>	Phosphate buffered saline with 0.08% sodium azide State: Purified State: Liquid purified Ig
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	potassium voltage-gated channel subfamily A member 4
<b>Database Link:</b>	<a href="#">Entrez Gene 3739 Human P22459</a>



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**Background:**

The Kv1.4 potassium channel is a voltage-gated channel protein which belongs to the delayed rectifier class and to the Shaker potassium channel subfamily which includes Kv1.1, Kv1.2, Kv1.3 and Kv1.5. Potassium channels are mainly found in plasma membranes but are not generally distributed over the cell surface. Potassium channels catalyze the rapid permeation of potassium ions while rejecting biologically abundant potential competitors such as sodium, calcium and magnesium. Ion selectivity and high throughput rate of potassium channels is accomplished by precise co-ordination of dehydrated potassium by the protein and multiple ion occupancy within the permeation pathway. All potassium channels carry out the formation of a transmembrane leak specific for potassium ions. Since cells almost universally maintain cytoplasmic potassium concentrations higher than those extracellularly, the opening of a potassium channel implies a negative ongoing change in electrical voltage across the cell membrane. This may result in termination of the action potential of electrically excitable cells including nerve, muscle and pancreatic beta cells. In non-excitable cells, potassium channels play important roles in the cellular potassium recycling required for electrolyte balance effected by the renal epithelium.

**Synonyms:**

Potassium voltage-gated channel subfamily A member 4, Voltage-gated potassium channel subunit Kv1.4, HPCN2, HBK4, HUKII, RCK4, RHK1, RK3