

## Product datasheet for **TA326378**

### **KIR2.3 (KCNJ4) Mouse Monoclonal Antibody [Clone ID: S25-35]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	S25-35
Applications:	WB
Recommended Dilution:	WB: 1-10ug/ml, IHC: 0.1-1.0ug/ml, IF: 1.0-10ug/ml
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Fusion protein amino acids 390-445 of human Kir2.3
Formulation:	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium voltage-gated channel subfamily J member 4
Database Link:	<a href="#">NP_690607</a> <a href="#">Entrez Gene 16520 Mouse</a> <a href="#">Entrez Gene 116649 Rat</a> <a href="#">Entrez Gene 3761 Human</a> <a href="#">P48050</a>



[View online »](#)

**Background:**

Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. They are present in the membranes that surround all biological cells because their main function is to regulate the flow of ions across this membrane. Whereas some ion channels permit the passage of ions based on charge, others conduct based on a ionic species, such as sodium or potassium. Furthermore, in some ion channels, the passage is governed by a gate which is controlled by chemical or electrical signals, temperature, or mechanical forces. There are a few main classifications of gated ion channels. There are voltage- gated ion channels, ligand- gated, other gating systems and finally those that are classified differently, having more exotic characteristics. The first are voltage- gated ion channels which open and close in response to membrane potential. These are then separated into sodium, calcium, potassium, proton, transient receptor, and cyclic nucleotide-gated channels; each of which is responsible for a unique role. Ligand-gated ion channels are also known as ionotropic receptors, and they open in response to specific ligand molecules binding to the extracellular domain of the receptor protein. The other gated classifications include activation and inactivation by second messengers, inward-rectifier potassium channels, calcium-activated potassium channels, two-pore-domain potassium channels, light-gated channels, mechano-sensitive ion channels and cyclic nucleotide-gated channels. Finally, the other classifications are based on less normal characteristics such as two-pore channels, and transient receptor potential channels. Several different potassium channels are known to be involved with electrical signaling in the nervous system. One class is activated by depolarization whereas a second class is not. The latter are referred to as inwardly rectifying K<sup>+</sup> channels, and they have a greater tendency to allow potassium to flow into the cell rather than out of it. This asymmetry in potassium ion conductance plays a key role in the excitability of muscle cells and neurons. The protein encoded by this gene is an integral membrane protein and member of the inward rectifier potassium channel family. The encoded protein has a small unitary conductance compared to other members of this protein family. Two transcript variants encoding the same protein have been found for this gene.

**Synonyms:**

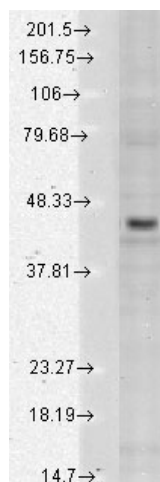
HIR; HIRK2; HRK1; IRK-3; IRK3; Kir2.3

**Note:**

Detects ~45kDa. No cross-reactivity against Kir2.1 or Kir2.2

**Protein Families:**

Druggable Genome, Ion Channels: Potassium, Transmembrane

**Product images:**

Western blot analysis of Kir2.3 in a human cell line mix using a 1:1000 dilution of the antibody