

## Product datasheet for **TA326490**

### **Kcnu1 Mouse Monoclonal Antibody [Clone ID: S2-16]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	S2-16
Applications:	WB
Recommended Dilution:	WB: 1-10ug/ml, IHC: 0.1-1.0ug/ml, IF: 1.0-10ug/ml
Reactivity:	Mouse
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Fusion protein amino acids 1052-1121 of mouse Slo3
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 channel, subfamily U, member 1
Database Link:	<a href="#">NP_032458</a> <a href="#">Entrez Gene 16532 Mouse</a> <a href="#">O54982</a>



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**Background:**

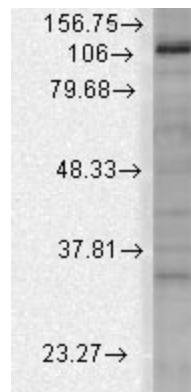
Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. They are present in the membranes that surround all biological cells because their main function 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 membranepotential. 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. The Slo3 channel is a novel potassium channel abundantly expressed in mammalian spermatocytes- tests have shown that it is expressed in both mouse and human testis. It represents a new and unique type of potassium channel that is regulated by both intracellular pH and membrane voltage. Because of its sensitivity to both pH and voltage, Slo3 may play a role in alkalization-mediated K(+) fluxes associated with sperm capacitation.

**Synonyms:**

KCa5; KCa5.1; Kcnma3; KCNMC1; Slo3

**Note:**

Detects ~115kDa.

**Product images:**

Western blot analysis of Slo3 in rat brain membrane lysates using a 1:1000 dilution of the antibody