



Rabbit Anti-phospho-Kv2.1 (Tyr128) antibody

SL5535R

Product Name:	phospho-Kv2.1 (Tyr128)
Chinese Name:	磷酸化钾Channel proteinDRK1抗体
Alias:	Kv2.1 (phospho Y128); p-Kv2.1 (phospho Y128); Kv2.1(phospho Tyr128); Delayed rectifier potassium channel 1; Delayed rectifier potassium channel Kv2.1; DRK 1; DRK1; h DRK1 K(+) channel; h-DRK1; hDRK 1; hDRK1; KCB 1; KCB1; KCNB1; KCNB1_HUMAN; KV2.1; Potassium channel protein DRK1; Potassium voltage gated channel shab related subfamily member 1; Potassium voltage-gated channel subfamily B member 1; Voltage-gated potassium channel subunit Kv2.1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	96kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Kv21 around the phosphorylation site of Tyr128:DEI(p-Y)LE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed

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. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in Drosophila, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shab-related subfamily. This member is a delayed rectifier potassium channel and its activity is modulated by some other family members. [provided by RefSeq].

Function:

Mediates the voltage-dependent potassium ion permeability of excitable membranes. Channels open or close in response to the voltage difference across the membrane, letting potassium ions pass in accordance with their electrochemical gradient.

Subunit:

Heteromultimer with KCNG2, KCNG3, KCNG4, KCNS1, KCNS2, KCNS3 and KCNV2 (By similarity).

Subcellular Location:

Membrane; Multi-pass membrane protein.

Post-translational modifications:

Highly phosphorylated on serine residues in the C-terminal. Differential phosphorylation on a subset of serines allows graded activity-dependent regulation of channel gating. Phosphorylation on Ser-457, Ser-541, Ser-567, Ser-607, Ser-656 and Ser-720 as well as the N-terminal Ser-15 are all regulated by calcineurin-mediated dephosphorylation. Particularly, Ser-607 and Tyr-128 are significant sites of voltage-gated regulation through phosphorylation/ dephosphorylation activities. Tyr-128 can be dephosphorylated by PTPalpha and cyt-PTPepsilon. Phosphorylation levels on Ser-607 are supersensitive to neuronal activity. Phosphorylation on Ser-567 is reduced during postnatal development with low levels at P2 and P5. Levels then increase to reach adult levels by P14. Phosphorylation levels on Ser-564 and Ser-607 are greatly reduced during seizures, by 40% and 85% respectively (By similarity).

Similarity:

Belongs to the potassium channel family. B (Shab) (TC 1.A.1.2) subfamily. Kv2.1/KCNB1 sub-subfamily.

SWISS:

Q14721

Gene ID:

3745

Database links:

Product Detail:

[Entrez Gene: 3745](#) Human

[Entrez Gene: 16500](#) Mouse

[Entrez Gene: 25736](#) Rat

[Omim: 600397](#) Human

[SwissProt: Q14721](#) Human

[SwissProt: Q03717](#) Mouse

[SwissProt: P15387](#) Rat

[Unigene: 84244](#) Human

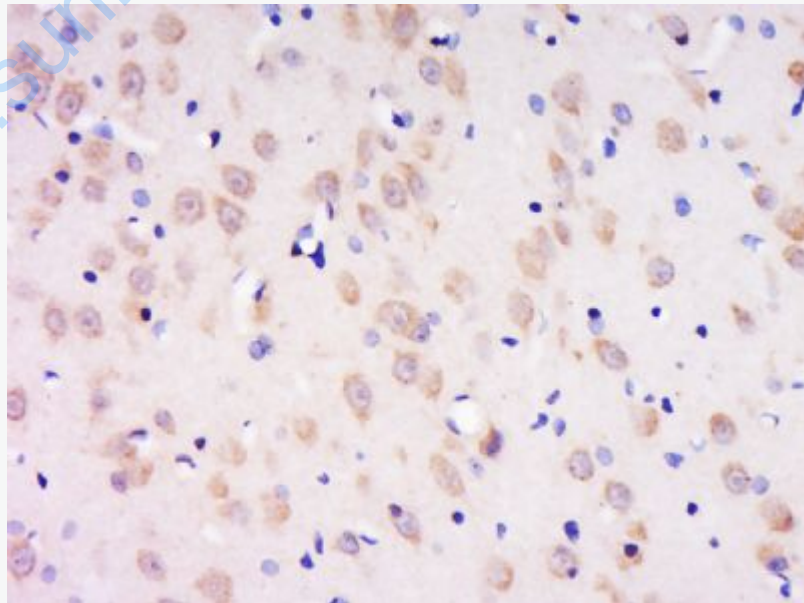
[Unigene: 387390](#) Mouse

[Unigene: 26724](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Kv2'1 Polyclonal Antibody, Unconjugated(SL5535R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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