



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Rabbit anti Rat Kv2.1 Potassium Channel

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[exalpha.com/product/kv2-1potassium-channel](http://exalpha.com/product/kv2-1potassium-channel)

Catalogue number:

**X1503P**

Isotype	IgG
Product Type	Polyclonal Antibody
Units	100 µg
Host	Rabbit
Species reactivity	Human Mouse Rat
Application	Western Blot

### Background

The Kv2.1 potassium channel is a voltage-gated channel protein which belongs to the delayed rectifier class and to the Shah potassium channel subfamily. 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 through put 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.

## Source

*Immunogen:* Synthetic peptide derived from the rat Kv2.1 potassium channel conjugated to KLH

## Product

*Product Form:* Unconjugated

*Formulation:* Provided as solution in phosphate buffered saline with 0.08% sodium azide

*Purification Method:* Ammonium Sulfate Precipitation

*Concentration:* See vial for concentration

## Applications

This antibody can be used for Western blotting (5-10 µg/ml). Optimal concentration should be evaluated by serial dilutions.

*Functional Analysis:* Western Blotting

## Storage

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

*Product Stability:* Products are stable for one year from purchase when stored properly

*Ship Conditions:* Ship at ambient temperature, freeze upon arrival

## Caution

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.

## References

1. Frech, G.C et al. 'A novel potassium channel with delayed rectifier properties isolated from rat brain by expression cloning.' *Nature* 340 (6235), 642-645 (1989)
2. Drewe, J. et al. 'Distinct spatial and temporal expression patterns of K<sup>+</sup> channel mRNAs from different subfamilies.' *Neurosci.* 12 (2), 538-548 (1992)
3. MacDonald, P.E, et al. 'Members of the Kv1 and Kv2 voltage-dependent K<sup>+</sup> channel families regulate insulin secretion.' *Mol Endocrinol.* Aug;15(8):1423-35 (2001)
4. Murakoshi H et al. 'Identification of the Kv2.1 K<sup>+</sup> channel as a major component of the delayed rectifier K<sup>+</sup> current in rat hippocampal neurons.' *J Neurosci (United States)*, Mar 1 1999, 19(5) p1728-35 (1999)
5. Archer SL, et al. 'Molecular identification of the role of voltage-gated K<sup>+</sup> channels, Kv1.5 and Kv2.1, in hypoxic pulmonary vasoconstriction and control of resting membrane potential in rat pulmonary artery myocytes.' *J Clin Invest (United States)*, Jun 1 1998, 101(11) p2319-30 (1998)

**Protein Reference(s)**

*Database Name:* SwissProt

*Accession number:* Q14721

*Species Accession:* Human

**Safety Datasheet(s) for this product:**

Sodium Azide

</wp-content/uploads/2018/07/Antibody-SDS-with-Sodium-AzideV2.pdf>