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Trek1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10652

Specification

Trek1 Antibody - Product Information

Application	**WB**
Primary Accession	P97438
Other Accession	AAV48996
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**46844**

Trek1 Antibody - Additional Information

Gene ID 16526

Application & Usage	**Western blotting (0.5-4 µg/ml). However, the optimal conditions should be determined individually. The antibody recognizes ~47 kDa Trek 1 of human, mouse, and rat origins. Reactivity to other species has not been tested.**

Other Names
K2p2.1; KCNK2; MGC126742; MGC126744; TPKC1; TREK; TREK-1; TREK1; hTREK-1c; hTREK-1e

Target/Specificity
Trek1

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-Trek-1 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Trek1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Trek1 Antibody - Protein Information

Name Kcnk2

Function
Ion channel that contributes to passive transmembrane potassium transport. Reversibly converts between a voltage-insensitive potassium leak channel and a voltage-dependent outward rectifying potassium channel in a phosphorylation-dependent manner. In astrocytes, forms mostly heterodimeric potassium channels with KCNK1, with only a minor proportion of functional channels containing homodimeric KCNK2 (PubMed:24496152). In astrocytes, the heterodimer formed by KCNK1 and KCNK2 is required for rapid glutamate release in response to activation of G-protein coupled receptors, such as F2R and CNR1 (PubMed:24496152).

Cellular Location
[Isoform 1]: Cell membrane; Multi-pass membrane protein. Note=Location at the cell membrane requires interaction with KCNK1. Is not detected at the cell membrane when KCNK1 is absent.

Tissue Location
Detected in hippocampus astrocytes (at protein level) (PubMed:24496152). High expression in brain and lung. Also detected in kidney, heart and skeletal muscle. Not detected in liver In the brain, highest expression in olfactory bulb, hippocampus and cerebellum.

Trek1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Trek1 Antibody - Images

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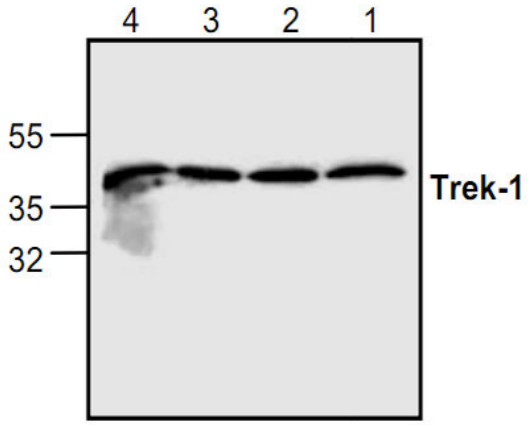

Western blot analysis of Trek-1 in Jurkat cell lysates (Lane 1, 2), 3T3 cell lysate (Lane 3), and rat kidney tissue lysate (Lane 4).

Trek1 Antibody - Background

Trek-1 and Trek-2 belong to the tandem-pore K+ channel family that has two pore-forming domains and four transmembrane segments. Trek-1 is expressed thro µghout the central nervous system whereas Trek-2 is found mostly in the cerebellum, spleen and testis. Trek-1 is activated by arachidonic acid and polyunsaturated fatty acids.