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Product datasheet for TA328664

KCNK4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide NLAFIDESSDTQSERGC, corresponding to amino acid residues 343-359 of human K2P4.1 . Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium two pore domain channel subfamily K member 4
Database Link:	NP_201567 Entrez Gene 116489 RatEntrez Gene 50801 Human Q9NYG8

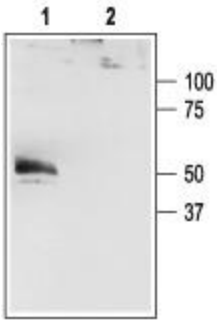
View online »

Background: K2P4.1 (also named TWIK-related arachidonic acid stimulated K+ channel, TRAAK or KCNK4) is a member of the 2-pore (2P) domain K+ channels family that at the moment includes 15 members. These channels show little time or voltage dependence and are considered to be â??leakyâ?? or â??backgroundâ?? K+ channels, thereby generating background currents which help set the membrane resting potential and cell excitation. The K2P channels have a signature topology that includes four transmembrane domains and two pore domains with intracellular N- and C termini. K2P channels are regulated by diverse physical and chemical stimuli including temperature, pH, mechanical stretch, inhalation anesthetics, etc. The channels can then be subclassified based in their specific activators. K2P4.1 can be integrated to a K2P subfamily that includes K2P2.1 (TREK1) and K2P10.1 (TREK2) that are activated by intracellular unsaturated fatty acids such as arachidonic acid, lysophosphatidic acid, high intracellular pH and mechanical stretch. K2P4.1 expression is largely confined to the brain in mouse samples while in humans it is also expressed in placenta and to a lesser degree in kidney, small intestine and prostate.

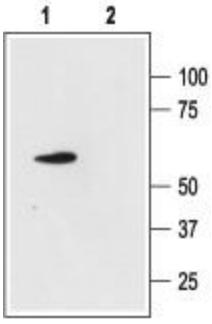
Synonyms: K2p4.1; TRAAK; TRAAK1

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

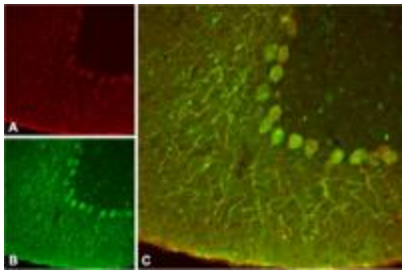
Product images:



Western blot analysis of HEK-293-K2P4.1 transfected cells: 1. Anti-K2P4.1 (TRAAK) antibody, (1:200). 2. Anti-K2P4.1 (TRAAK) antibody, preincubated with the control peptide antigen.



Western blot analysis of rat cerebellum lysate: 1. Anti-K2P4.1 (TRAAK) antibody, (1:200). 2. Anti-K2P4.1 (TRAAK) antibody, preincubated with the control peptide antigen.



Expression of K2P4.1 in rat cerebellum. Immunohistochemical staining of rat cerebellum using Anti-K2P4.1 (TRRAK) antibody. A. K2P4.1 channel appears in Purkinje neuronal processes (red). B. Staining of Purkinje nerve cells with mouse anti-calbindin D28K (a calcium binding protein, green). C. Confocal merge of K2P4.1 channel and calbindin D28K demonstrates the co-localization of these proteins.