

Product datasheet for **TA328937**

Kcnd2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)SNQLQSSSEDEPAFVSK, corresponding to amino acid residues 454-469 of rat Kv4.2. 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% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized peptide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium voltage-gated channel subfamily D member 2
Database Link:	NP_113918 Entrez Gene 16508 Mouse Entrez Gene 65180 Rat Q63881



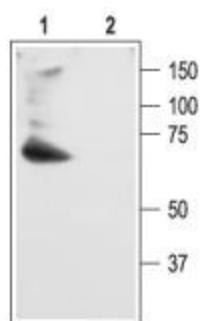
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Background:

Kv4.2 is a voltage-dependent K⁺ channel that belongs to the Shal channel subfamily and includes two other members: Kv4.1 and Kv4.3.1 Kv4.2 possesses the signature structure of the voltage-dependent K⁺ channels: six membrane-spanning domains with intracellular N and C termini. As with other members of the voltage-gated K⁺ channel superfamily, the functional channel is a tetramer that can be composed of more than one member of the Shal subfamily, i.e. heterotetramers of Kv4.1 and Kv4.3. The Kv4 channels are characterized by activation at subthreshold membrane potentials, inactivate rapidly and recover from inactivation quickly compared with other voltage-dependent K⁺ channels. This type of current is known as transient A-type K⁺ currents. For example, depolarization-activated K⁺ currents in rat neostriatal cholinergic interneurons are predominantly of the A-type and attributable to coexpression of Kv4.2 and Kv4.1 subunits. The biophysical properties of the Kv4.2 subunit can be modified by its association with auxiliary β subunits such as the KChIP family that increase Kv4.2 current densities and accelerates both the inactivation and the recovery time. Kv4.2 is also highly expressed in the heart where together with Kv4.3 underlie the fast inactivating and recovering cardiac transient outward current I_{to}.

Synonyms:

KIAA1044; KV4.2; MGC119702; MGC119703; RK5

Product images:

Western blot analysis of rat brain membranes: 1. Anti-KV4.2 antibody, (1:200). 2. Anti-KV4.2 antibody, preincubated with the control peptide antigen.