

Polyclonal Antibody to KCNQ2 - Aff - Purified

Alternate names:	KQT-like 2, KvLQT2, Neuroblastoma-specific potassium channel subunit alpha KvLQT2, Potassium voltage-gated channel subfamily KQT member 2, Voltage-gated potassium channel subunit Kv7.2
Catalog No.:	SP5352P
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	KCNQs are members of the voltage-dependent non-inactivating potassium channel family. Currently there are five known KNCQs (KCNQ1-5) found in the central nervous system and KNCQ2 and 3 have demonstrated their importance in M-current activation. Studies have shown that KCNQ2 and KCNQ3 form heteromultimers that, when formed, substantially increase the M-current. Inhibition of M-current controls neuron excitability throughout the nervous system as well as the responsiveness to synaptic inputs. Genetic mutations in these proteins have been linked to disorders such as benign familial neonatal convulsions (BFNC), deafness, neuropathic pain and epilepsy.
Uniprot ID:	O43526
NCBI:	NP_004509.2
GeneID:	3785
Host:	Rabbit
Immunogen:	GST fusion protein encoding the first 70 amino acids of human KCNQ2. Remarks: SP5352P immunogen is a GST fusion protein encoding the first 70 amino acids of human KCNQ2.
Format:	State: Liquid purified IgG fraction. Purification: Epitope affinity chromatography. Buffer System: PBS containing 1 mg/ml BSA as stabilizer, glycerol, and 0.02% sodium azide as preservative.
Applications:	Immunocytochemistry: 0.5 µg/ml. Immunohistochemistry on frozen sections: 0.5 µg/ml, staining of rat hippocampal using SP5352P yielded a strong signal in granule cell layer and the mossy fibers found in the central hilus of the dentate gyrus. Immunofluorescence: 0.5 µg/ml. Western Blot. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	SP5352P detects KCNQ2 from mouse, human and rat samples. This antibody is specific for KCNQ2 and does not detect KCNQ1, KCNQ3, KCNQ4 or KCNQ5.

Storage:

Store the antibody at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Uchida, T;Lossin, C;Ihara, Y;Deshimaru, M;Yanagawa, Y;Koyama, S;Hirose, S. Abnormal γ -aminobutyric acid neurotransmission in a Kcnq2 model of early onset epilepsyEpilepsia 2017. PubMed PMID: 28575529.

General Readings:

1. J. Cell Sci., Mar 2007; 120: 953-963.
2. British J. Pharm., 137:1173-1186, 2002.