

产品名称: KCNQ2/3/4/5 Rabbit Polyclonal Antibody

产品货号: APRab12947

产品概述 (Summary)

描述(Description)	Rabbit polyclonal Antibody
宿主(Host)	Rabbit
应用(Application)	IHC, ICC/IF, ELISA
种属反应(Reactivity)	Human, Mouse, Rat
偶联物(Conjugation)	Unconjugated
修饰(Modification)	Unmodified
同种型(Isotype)	IgG
克隆(Clonality)	Polyclonal
剂型(Form)	Liquid
保存条件(Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液(Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化 (Purification)	Affinity purification

产品应用(Application)

稀释比(Dilution Ratio) IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:5000-1:20000

分子量(Molecular Weight)

抗原信息(Antigen Information)

基因名(Gene Name)	KCNQ2
别名(Alternative Names)	KCNQ2; Potassium voltage-gated channel subfamily KQT member 2; KQT-like 2; Neuroblastoma-specific potassium channel subunit alpha KvLQT2; Voltage-gated potassium channel subunit Kv7.2; KCNQ3; Potassium voltage-gated channel subfamily KQT me
基因 ID(Gene ID)	3786.0
SwissProt ID	O43526/O43525/P56696/Q9NR82
免疫原(Immunogen)	The antiserum was produced against synthesized peptide derived from human Kv7.3/KCNQ3. AA range:191-240

研究背景 (Background)

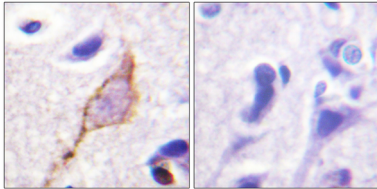
The M channel is a slowly activating and deactivating potassium channel that plays a critical role in the regulation of neuronal excitability. The M channel is formed by the association of the protein encoded by this gene and a related protein encoded by the KCNQ3 gene, both integral membrane proteins. M channel currents are inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. Defects in this gene are a cause of benign familial neonatal convulsions type 1 (BFNC), also known as epilepsy, benign neonatal type 1 (EBN1). At least five transcript variants encoding five different isoforms have been found for this gene. [provided by RefSeq, Jul 2008], alternative products: Additional isoforms seem to exist, disease: Defects in KCNQ2 are the cause of benign neonatal epilepsy type 1 (EBN1) [MIM:121200]. Benign neonatal epilepsy is characterized by clusters of seizures occurring in the first days of life. Most patients have spontaneous remission by 12 months of age and show normal psychomotor development. The disorder is distinguished from benign familial infantile seizures by an earlier age at onset, disease: Defects in KCNQ2 are the cause of benign neonatal epilepsy with myokymia (EBNMK) [MIM:606437]. EBNMK is a syndrome characterized by benign neonatal convulsions followed later in life by myokymia, disease: Defects in KCNQ2 are the cause of myokymia isolated type 2 (MK2) [MIM:606437]. Myokymia is a condition characterized by spontaneous involuntary contraction of muscle fiber groups that can be observed as vermiform movement of the overlying skin. Electromyography typically shows continuous motor unit activity with spontaneous oligo- and multiplet-discharges of high intraburst frequency (myokymic discharges). Isolated spontaneous muscle twitches occur in many persons and have no grave significance, domain: The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position, function: Probably important in the regulation of neuronal excitability. Associates with KCNQ3 to form a potassium channel with essentially identical properties to the channel underlying the native M-current, a slowly activating and deactivating potassium conductance which plays a critical role in determining the subthreshold electrical excitability of neurons as well as the responsiveness to synaptic inputs. KCNQ2/KCNQ3 current is blocked by linopirdine and XE991, and activated by the anticonvulsant retigabine. Muscarinic agonist oxotremorine-M strongly suppress KCNQ2/KCNQ3 current in cells in which cloned KCNQ2/KCNQ3 channels were coexpressed with M1 muscarinic receptors, miscellaneous: Inclusion of isoform 6 in heteromultimers results in attenuation of potassium current. Prominent expression of isoform 6 in the developing brain may alter firing repertoires of immature neurons excitability to provide cues for proliferation rather than differentiation, miscellaneous: Mutagenesis experiments were carried out in *Xenopus* oocytes by coexpression of either KCNQ2(mut) and KCNQ3 at the ratio of 1:1, or of KCNQ2(mut), KCNQ2(wt) and KCNQ3 at the ratio of 1:1:2, to mimic the situation in a heterozygous patient with BFNC1 disease, PTM: In *Xenopus* oocytes KCNQ2/KCNQ3 heteromeric current can be increased by intracellular cyclic AMP, an effect that depends on phosphorylation of Ser-52 in the N-terminus region, similarity: Belongs to the potassium channel family. KQT subfamily, subunit: Heteromultimer with KCNQ3. May associate with KCNE2, tissue specificity: In adult and fetal brain. Highly expressed in areas containing neuronal cell bodies, low in spinal chord and corpus callosum. Isoform 2 is preferentially expressed in differentiated neurons, whereas isoform 6 is prominent in fetal brain, undifferentiated neuroblastoma cells, and brain tumors,.

研究领域 (Research Area)

注意事项 (Note)

For research use only.

图片 (Image Data)



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Kv7.3/KCNQ3 Antibody. The picture on the right is blocked with the synthesized peptide.

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产品类别	产品货号	产品名称
WB 解决方案	RA10020	2h 极速 WB 即用型全流程试剂盒
	RA10021	4h 快速 WB 即用型全流程试剂盒
	RA10042	5h 畅享版 WB 全流程试剂盒
	RA10037	校准级彩色预染蛋白 Marker (8-180kDa)
	RA10038	校准级彩色预染蛋白 Marker (10-250kDa)
	RA10039	校准级高分子彩色预染蛋白 Marker (25-400kDa)
TSA 多重荧光染色试剂盒	RA10008	TSA 双标三色多重荧光染色试剂盒 (mIHC)
	RA10009	TSA 三标四色多重荧光染色试剂盒 (mIHC)
	RA10010	TSA 四标五色多重荧光染色试剂盒 (mIHC)
	RA10011	TSA 五标六色多重荧光染色试剂盒 (mIHC)
	RA10012	TSA 六标七色多重荧光染色试剂盒 (mIHC)
IHC 检测试剂盒	RA10006	HRP Anti-Mouse/Rabbit IHC Detection System
	RA10007	Polymer-HRP Anti-Mouse/Rabbit IHC Detection System
抗体标记试剂盒	RE80004p	辣根过氧化物酶(HRP)抗体标记试剂盒
	RE80002q	Sulfo-NHS-生物素标记试剂盒
	RE80007p	Cy3 荧光素标记试剂盒
	RE80011p	Fluor488 荧光素标记试剂盒
	RE80017p	Fluor750 荧光素标记试剂盒
	RE80005p	藻红蛋白(R-PE) 抗体快速标记试剂盒
	RE80040	PE-Cy7 串联染料抗体快速标记试剂盒
稳转细胞系构建服务 (免费赠送全膜 WB 验证)	TS-0001	过表达稳转细胞系构建
	TS-0002	敲低稳转细胞系构建
	TS-0003	敲除细胞系构建

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