

产品名称: CAC1A Rabbit Polyclonal Antibody
产品货号: APRab07811



产品概述 (Summary)

产品名称 (Production Name)	CAC1A Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	IHC, ICC/IF
种属反应性 (Reactivity)	Human, Mouse, Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (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, and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	CACNA1A
别名 (Alternative Names)	CACH4 CACN3 CACNL1A4
基因 ID (Gene ID)	773.0
蛋白 ID (SwissProt ID)	O00555.Synthesized peptide derived from human protein . at AA range: 1401-1450

产品应用 (Application)

稀释比 (Dilution Ratio)	IHC 1:50-1:300, ICC/IF 1:50-1:200
蛋白分子量 (Molecular Weight)	275kDa

研究背景 (Background)

calcium voltage-gated channel subunit alpha1 A(CACNA1A) Homo sapiens Voltage-dependent calcium channels mediate

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the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, and gene expression. Calcium channels are multisubunit complexes composed of alpha-1, beta, alpha-2/delta, and gamma subunits. The channel activity is directed by the pore-forming alpha-1 subunit, whereas, the others act as auxiliary subunits regulating this activity. The distinctive properties of the calcium channel types are related primarily to the expression of a variety of alpha-1 isoforms, alpha-1A, B, C, D, E, and S. This gene encodes the alpha-1A subunit, which is predominantly expressed in neuronal tissue. Mutations in this gene are associated with 2 neurologic disorders, familial hemiplegic migraine and episodic ataxia 2. This gene also exhibits alternative products: Additional isoforms seem to exist, disease: Defects in CACNA1A are the cause of episodic ataxia type 2 (EA2) [MIM:108500]; also known as acetazolamide-responsive hereditary paroxysmal cerebellar ataxia (APCA). EA2 is an autosomal dominant disorder characterized by acetazolamide-responsive attacks of ataxia, migraine-like symptoms, interictal nystagmus, and cerebellar atrophy, disease: Defects in CACNA1A are the cause of familial hemiplegic migraine (FHM) [MIM:141500]; also known as migraine familial hemiplegic 1 (MHP1). FHM, a rare autosomal dominant subtype of migraine with aura, is associated with ictal hemiparesis and, in some families, progressive cerebellar atrophy, disease: Defects in CACNA1A are the cause of spinocerebellar ataxia type 6 (SCA6) [MIM:183086]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA6 is mainly caused by expansion of a CAG repeat in the coding region of CACNA1A. There seems to be a correlation between the repeat number and earlier onset of the disorder, domain: Each of the four internal repeats contains five hydrophobic transmembrane segments (S1, S2, S3, S5, S6) and one positively charged transmembrane segment (S4). S4 segments probably represent the voltage-sensor and are characterized by a series of positively charged amino acids at every third position, function: Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1A gives rise to P and/or Q-type calcium currents. P/Q-type calcium channels belong to the 'high-voltage activated' (HVA) group and are blocked by the funnel toxin (Ftx) and by the omega-agatoxin-IVA (omega-Aga-IVA). They are however insensitive to dihydropyridines (DHP), and omega-conotoxin-GVIA (omega-CTX-GVIA), polymorphism: The poly-Gln region of CACNA1A is polymorphic: 6 to 17 repeats in the normal population, expanded to about 21 to 30 repeats in SCA6. Repeat expansion has been reported also in a EA2 family, similarity: Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family, subunit: Voltage-dependent calcium channels are multisubunit complexes, consisting of alpha-1, alpha-2, beta and delta subunits in a 1:1:1:1 ratio. The channel activity is directed by the pore-forming and voltage-sensitive alpha-1 subunit. In many cases, this subunit is sufficient to generate voltage-sensitive calcium channel activity. The auxiliary subunits beta and alpha-2/delta linked by a disulfide bridge regulate the channel activity, tissue specificity: Brain specific; mainly found in cerebellum, cerebral cortex, thalamus and hypothalamus. No expression in heart, kidney, liver or muscle. Purkinje cells contain predominantly P-type VSCC, the Q-type being a prominent calcium current in cerebellar granule cells,

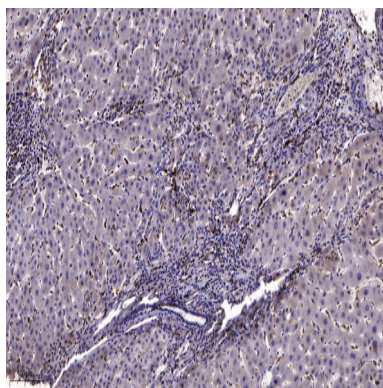
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研究领域 (Research Area)

MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Long-term depression;Taste transduction;Type II diabetes mellitus;

图片 (Image Data)



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200 (4° overnight) .
2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min) .

注意事项 (Note)

For research use only .