

## CAC1A Polyclonal Antibody

<b>Catalog No :</b>	YN2470
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	IHC;IF
<b>Target :</b>	CAC1A
<b>Fields :</b>	>>MAPK signaling pathway;>>Calcium signaling pathway;>>Synaptic vesicle cycle;>>Retrograde endocannabinoid signaling;>>Glutamatergic synapse;>>Cholinergic synapse;>>Serotonergic synapse;>>GABAergic synapse;>>Dopaminergic synapse;>>Long-term depression;>>Taste transduction;>>Type II diabetes mellitus;>>Spinocerebellar ataxia;>>Morphine addiction;>>Nicotine addiction;>>Chemical carcinogenesis - receptor activation
<b>Gene Name :</b>	CACNA1A CACH4 CACN3 CACNL1A4
<b>Protein Name :</b>	Voltage-dependent P/Q-type calcium channel subunit alpha-1A (Brain calcium channel I) (BI) (Calcium channel, L type, alpha-1 polypeptide isoform 4) (Voltage-gated calcium channel subunit alpha Cav2.1)
<b>Human Gene Id :</b>	773
<b>Human Swiss Prot No :</b>	O00555
<b>Mouse Swiss Prot No :</b>	P97445
<b>Rat Swiss Prot No :</b>	P54282
<b>Immunogen :</b>	Synthesized peptide derived from human protein . at AA range: 1401-1450
<b>Specificity :</b>	CAC1A Polyclonal Antibody detects endogenous levels of protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IHC 1:50-300. IF 1:50-200

**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 275kD

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**Cell Pathway :** MAPK\_ERK\_Growth;MAPK\_G\_Protein;Calcium;Long-term depression;Taste transduction;Type II diabetes mellitus;

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**Background :** calcium voltage-gated channel subunit alpha1 A(CACNA1A) Homo sapiens Voltage-dependent calcium channels 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, 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

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**Function :** 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. Patient

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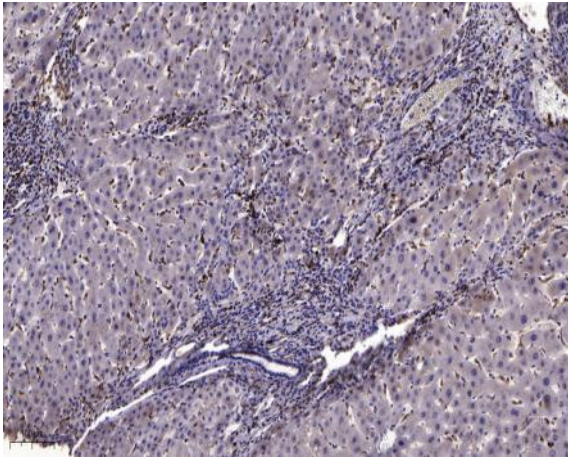
**Subcellular Location :** Cell membrane ; Multi-pass membrane protein .

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**Expression :** Brain specific; mainly found in cerebellum, cerebral cortex, thalamus and hypothalamus. Expressed in the small cell lung carcinoma cell line SCC-9. 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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## Products Images



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).