

## **CAC1A Polyclonal Antibody**

Catalog No: YN2470

**Reactivity:** Human; Mouse; Rat

**Applications:** IHC;IF

Target: CAC1A

**Fields:** >>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

Gene Name: CACNA1A CACH4 CACN3 CACNL1A4

**Protein Name:** 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)

**Human Gene Id:** 773

**Human Swiss Prot** 000555

No:

Mouse Swiss Prot P97445

No:

Rat Swiss Prot No: P54282

**Immunogen:** Synthesized peptide derived from human protein . at AA range: 1401-1450

**Specificity:** CAC1A Polyclonal Antibody detects endogenous levels of protein.

**Formulation:** Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.

Source: Polyclonal, Rabbit, lgG

**Dilution:** IHC 1:50-300. IF 1:50-200

1/3



**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

1 mg/ml **Concentration:** 

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

Observed Band: 275kD

MAPK ERK Growth; MAPK G Protein; Calcium; Long-term depression; Taste **Cell Pathway:** 

transduction; Type II diabetes mellitus;

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

> 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

**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 acetozolamideresponsive 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

Subcellular Location:

Cell membrane; Multi-pass membrane protein.

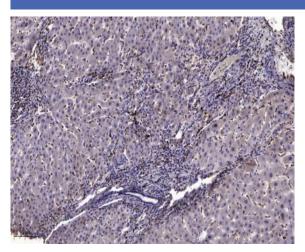
Brain specific; mainly found in cerebellum, cerebral cortex, thalamus and **Expression:** 

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.



## **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).