

CACNA1A Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21701c**Specification**

CACNA1A Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O00555
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	282564
Antigen Region	898-932

CACNA1A Antibody (Center) - Additional Information**Gene ID** 773**Other Names**

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 Cav21, CACNA1A, CACH4, CACN3, CACNL1A4

Target/Specificity

This CACNA1A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 898-932 amino acids from the Central region of human CACNA1A.

Dilution

WB~~1:2000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CACNA1A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CACNA1A Antibody (Center) - Protein Information**Name** CACNA1A ([HGNC:1388](#))

Synonyms CACH4, CACN3, CACNL1A4

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 specifically blocked by the spider omega-agatoxin-IVA (AC P54282) (By similarity). They are however insensitive to dihydropyridines (DHP).

Cellular Location

Cell membrane; Multi-pass membrane protein

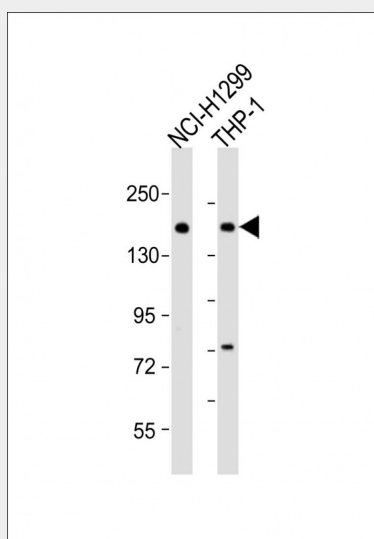
Tissue Location

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

CACNA1A Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CACNA1A Antibody (Center) - Images

All lanes : Anti-CACNA1A Antibody (Center) at 1:2000 dilution Lane 1: NCI-H1299 whole cell lysate Lane 2: THP-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 282 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

CACNA1A Antibody (Center) - Background

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).

CACNA1A Antibody (Center) - References

Hans M.,et al.Biophys. J. 76:1384-1400(1999).
Ophoff R.A.,et al.Cell 87:543-552(1996).
Zhuchenko O.,et al.Nat. Genet. 15:62-69(1997).
Toru S.,et al.J. Biol. Chem. 275:10893-10898(2000).
Grimwood J.,et al.Nature 428:529-535(2004).