10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# CACNB1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16144b

## Product Information

| | |
|---|---|
| **Application** | WB, E |
| **Primary Accession** | Q02641 |
| **Other Accession** | Q9MZL7, NP_954855.1, NP_000714.3 |
| **Reactivity** | Human |
| **Predicted** | Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB35369 |
| **Calculated MW** | 65714 |
| **Antigen Region** | 543-572 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 782 |
| **Other Names** | Voltage-dependent L-type calcium channel subunit beta-1, CAB1, Calcium channel voltage-dependent subunit beta 1, CACNB1, CACNLB1 |
| **Target/Specificity** | This CACNB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 543-572 amino acids from the C-terminal region of human CACNB1. |
| **Dilution** | WB~~1:1000 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** | CACNB1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

| | |
|---|---|
| **Name** | CACNB1 |
| **Synonyms** | CACNLB1 |

| | |
|---|---|
| **Function** | Regulatory subunit of L-type calcium channels (PubMed: 1309651, PubMed:15615847, PubMed:8107964). Regulates the activity of L-type calcium channels that contain CACNA1A as pore- forming subunit (By similarity). Regulates the activity of L-type calcium channels that contain CACNA1C as pore-forming subunit and increases the presence of the channel complex at the cell membrane (PubMed:15615847). Required for functional expression L-type calcium channels that contain CACNA1D as pore-forming subunit (PubMed:1309651). Regulates the activity of L-type calcium channels that contain CACNA1B as pore-forming subunit (PubMed:8107964). |
| **Cellular Location** | Cell membrane, sarcolemma; Peripheral membrane protein {ECO:0000250\|UniProtKB:P19517}; Cytoplasmic side {ECO:0000250\|UniProtKB:P19517}. Cell membrane; Peripheral membrane protein |
| **Tissue Location** | Detected in heart ventricle (at protein level) (PubMed:15615847). Isoform 1 and isoform 3 are expressed in brain, heart, spleen, central nervous system and neuroblastoma cells. Isoform 2 is expressed in skeletal muscle. |

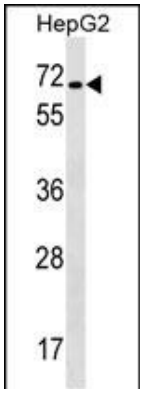
## Background

The protein encoded by this gene belongs to the calcium channel beta subunit family. It plays an important role in the calcium channel by modulating G protein inhibition, increasing peak calcium current, controlling the alpha-1 subunit membrane targeting and shifting the voltage dependence of activation and inactivation. Alternative splicing occurs at this locus and three transcript variants encoding three distinct isoforms have been identified.

## References


Jangsangthong, W., et al. Pflugers Arch. 459(3):399-411(2010)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Lim, J., et al. Cell 125(4):801-814(2006)
Foell, J.D., et al. Physiol. Genomics 17(2):183-200(2004)


## Images




CACNB1 Antibody (C-term) (Cat. #AP16144b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the CACNB1 antibody detected the CACNB1 protein (arrow).