

## Mouse Cavbeta2 Monoclonal Antibody | anti-Cacnb2 antibody

CaVbeta2 Antibody: ATTO 594

| CATALOG # | HOST  | REACTIVITY        | APPLICATIONS                                            |
|-----------|-------|-------------------|---------------------------------------------------------|
| AAA102836 | Mouse | Human, Mouse, Rat | Immunohistochemistry, Immunoprecipitation, Western Blot |

### PRODUCT SYNONYMS

Cavbeta2; Monoclonal Antibody; CaVbeta2 Antibody: ATTO 594; Cacnb2; cacnb2; Voltage-dependent L-type calcium channel subunit beta-2; CAB2; anti-Cacnb2 antibody

### PRODUCT SPECIFICATIONS

|                                                  |                                                                         |
|--------------------------------------------------|-------------------------------------------------------------------------|
| Host                                             | Mouse                                                                   |
| Reactivity                                       | Human, Mouse, Rat                                                       |
| Clonality                                        | Monoclonal                                                              |
| Isotype                                          | IgG1                                                                    |
| Clone Number                                     | S8b-1                                                                   |
| Form/Format                                      | Protein G Purified                                                      |
| Concentration                                    | 1mg/mL (varies by lot)                                                  |
| Sequence Length                                  | 604                                                                     |
| Applicable Applications for anti-Cacnb2 antibody | IHC (Immunohistochemistry), IP (Immunoprecipitation), WB (Western Blot) |
| Conjugate                                        | ATTO 594                                                                |
| Storage Buffer                                   | PBS pH7.4, 50% glycerol, 0.09% sodium azide                             |
| Preparation and Storage                          | -20 degree C                                                            |

### IMAGES



#### ICC (Immunocytochemistry)

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1. Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20 degree C. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: All cells positive. Bright dottiness located throughout cytoplasm and in nuclei.



#### WB (Western Blot)

Western Blot analysis of Human Cell line lysates showing detection of Cav Beta2 Calcium Channel protein using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1. Load: 15 ug. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



#### IHC (Immunohistochemistry)

Immunohistochemistry analysis using Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody, Clone S8b-1. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Cav Beta2 Calcium Channel Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: All nuclei. Some nuclei also staining higher up in epidermis.

### ADDITIONAL INFORMATION

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-Cacnb2 antibody</b> | <b>Background Info:</b> Detects ~78 kDa. No cross reactivity against Cavbeta1, Cavbeta3, Cavbeta4<br><br><b>Scientific Background:</b> Cav Beat subunits are involved in the transport of the pore forming alpha1 subunit to the plasma membrane (3). They also shield an ER Retention signal on the alpha1 subunit, thereby guiding the pore-forming subunit to the target membrane (4, 5). They also determine the biophysical properties of the calcium channel (5). |
| <b>Product Categories/Family for anti-Cacnb2 antibody</b>   | <a href="#">Ion Channels</a> ; <a href="#">Neuroscience</a>                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>References</b>                                           | 1. Hille B. (2001) Ion Channels of Excitable Membranes, 3rd Ed., Sinauer Associated Inc.: Sunderland, MA USA. 2. www.iochannels.org 3. Dolphin A.C. (2003) J Bioenerg. Biomembr. 35: 599-620. 4. Bichet D., et al. (2000) Neuron. 25: 177-190. 5. Xie M., et al. (2007) J Cell Biol. 178(3): 489-502.                                                                                                                                                                   |

### NCBI AND UNIPROT INFORMATION

|                                         |                                                                                                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>NCBI GI #</b>                        | 16758716                                                                                                        |
| <b>NCBI GeneID</b>                      | 116600                                                                                                          |
| <b>NCBI Accession #</b>                 | NP_446303                                                                                                       |
| <b>NCBI GenBank Nucleotide #</b>        | NM_053851.1                                                                                                     |
| <b>UniProt Accession #</b>              | Q8VGC3; Q811Q6; Q811Q7; Q91ZJ8; Q9QUU7                                                                          |
| <b>Molecular Weight</b>                 | 68,066 Da                                                                                                       |
| <b>NCBI Official Full Name</b>          | voltage-dependent L-type calcium channel subunit beta-2                                                         |
| <b>NCBI Official Synonym Full Names</b> | calcium channel, voltage-dependent, beta 2 subunit                                                              |
| <b>NCBI Official Symbol</b>             | Cacnb2                                                                                                          |
| <b>NCBI Official Synonym Symbols</b>    | Cacnlb2                                                                                                         |
| <b>NCBI Protein Information</b>         | voltage-dependent L-type calcium channel subunit beta-2; CAB2; calcium channel voltage-dependent subunit beta 2 |
| <b>UniProt Protein Name</b>             | Voltage-dependent L-type calcium channel subunit beta-2                                                         |
| <b>UniProt Gene Name</b>                | <b>Cacnb2</b>                                                                                                   |
| <b>UniProt Synonym Gene Names</b>       | Cacnlb2; CAB2                                                                                                   |
| <b>UniProt Entry Name</b>               | CACB2_RAT                                                                                                       |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.