



# CaV $\alpha$ 2 $\delta$ 1 Monoclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-mAb-16324                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Applications</b>                | WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>                   | CACNA2D1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Immunogen</b>                   | Synthetic Peptide of CaV $\alpha$ 2 $\delta$ 1                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Specificity</b>                 | The antibody detects endogenous CaV $\alpha$ 2 $\delta$ 1 protein                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>                      | Monoclonal, Mouse,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purification</b>                | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Dilution</b>                    | WB 1:500-1:2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>                      | $\geq 90\%$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>                    | CO6A2_HUMAN;COL6A2;Collagen alpha 2(VI) chain;Collagen alpha-2(VI) chain;collagen type VI alpha 2;Collagen VI alpha 2 polypeptide;human mRNA for collagen VI alpha 2 C terminal globular domain;PP361;CaV $\alpha$ 2 $\delta$ 1;CACNA2D1; Voltage-dependent calcium channel subunit alpha-2/delta-1 (Voltage-gated calcium channel subunit alpha-2/delta-1) [Cleaved into: Voltage-dependent calcium channel subunit alpha-2-1;Voltage-dependent;Voltage-dependent calcium channel subunit delta-1] |
| <b>Observed Band</b>               | 100-130kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Calculated Molecular Weight</b> | 100-130kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cell Pathway</b>                | Membrane ; Single-pass type I membrane protein .                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Tissue Specificity</b>          | Isoform 1 is expressed in skeletal muscle. Isoform 2 is expressed in the central nervous system. Isoform 2, isoform 4 and isoform 5 are expressed in neuroblastoma cells. Isoform 3, isoform 4 and isoform 5 are expressed in the aorta.                                                                                                                                                                                                                                                            |
| <b>Function</b>                    | domain:The MIDAS-like motif in the VWFA domain binds divalent metal cations and is required to promote trafficking of the alpha-1 (CACNA1) subunit to the plasma membrane by an integrin-like switch.,function:The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and                                                                                                                                                                                |



activation/inactivation kinetics of the calcium channel. Plays an important role in excitation-contraction coupling.,miscellaneous: Binds gabapentin, an antiepileptic drug.,PTM: Proteolytically processed into subunits alpha-2-1 and delta-1 that are disulfide-linked.,similarity: Belongs to the calcium channel subunit alpha-2/delta family.,similarity: Contains 1 cache domain.,similarity: Contains 1 VWFA domain.,subunit: Dimer formed of alpha-2-1 and delta-1 chains; disulfide-linked. Voltage-dependent calcium channels are multisubunit complexes, consisting of alpha-1 (CACNA1), alpha-2 (CACNA2D

#### Background

calcium voltage-gated channel auxiliary subunit alpha2delta 1(CACNA2D1) Homo sapiens The preproprotein encoded by this gene is cleaved into multiple chains that comprise the alpha-2 and delta subunits of the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. Mutations in this gene can cause cardiac deficiencies, including Brugada syndrome and short QT syndrome. Alternate splicing results in multiple transcript variants, some of which may lack the delta subunit portion. [provided by RefSeq, Nov 2014],

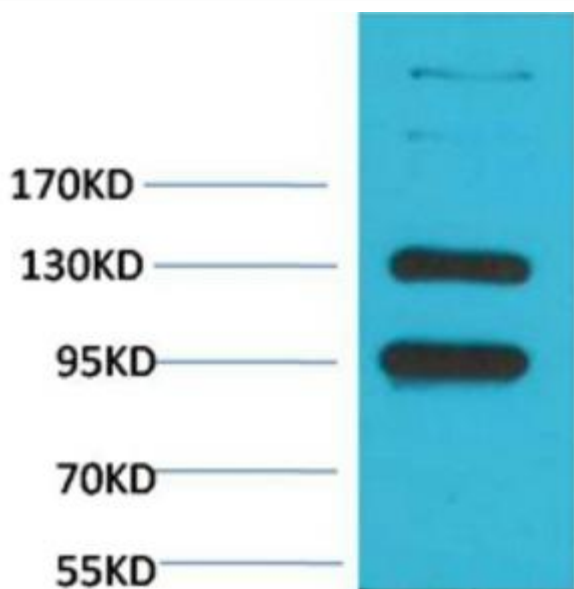
#### matters needing attention

Avoid repeated freezing and thawing!

#### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

### Products Images



Western Blot analysis of various cells using Ca $\alpha$  2 $\delta$  1 Monoclonal Antibody