Voltage gated calcium channels (VGCCs), also referred to as voltage sensitive calcium channels (VSCCs), are present in most excitable cells. They mediate the influx of Ca$^{2+}$ ions into the cell and trigger the release of neurotransmitters or hormones but are also involved in other calcium dependent processes like metabolism, cell proliferation and cell death.

VGCCs are composed of four subunits (α-1, α-2, β and δ) in a 1:1:1:1 ratio. The α-1A isoform occurs in VGCCs of the P/Q-type while isoform α-1B is found in the N-type. Both belong to the high voltage activated group (hva).

Selected References SYSY Antibodies


TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Cat.No. 152 203; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage

50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For reconstitution add 50 µl H$_2$O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.

Applications

WB: 1 : 1000 (see remarks)
IP: not tested yet
ICC: 1 : 500 to 1 : 1000
IHC: 1 : 500
IHC-P/FPPE: not tested yet
EM: yes

Immunogen

Recombinant protein corresponding to AA 1921 to 2212 from rat Ca2+ channel P/Q-type α-1A (UniProt Id: P54282)

Reactivity

Reacts with: rat (P54282), mouse (P97445)

Specificity

Specific for Ca$^{2+}$ channel α-1A. (K.O. verified)

Remarks

WB: This protein tends to aggregate after boiling, making it necessary to run SDS-PAGE without-boiled samples.