

Anti-VDCC α 1A (Cav2.1)

Code Number : VDCCa1A-GP-Af810 (guinea pig, RRID : AB_2571851)

Size : 20 μ g and 50 μ g / See label on vial
(affinity-purified with antigen polypeptide)

Formulation : Liquid ; 200 μ g/ml in PBS with 0.05% NaN₃.

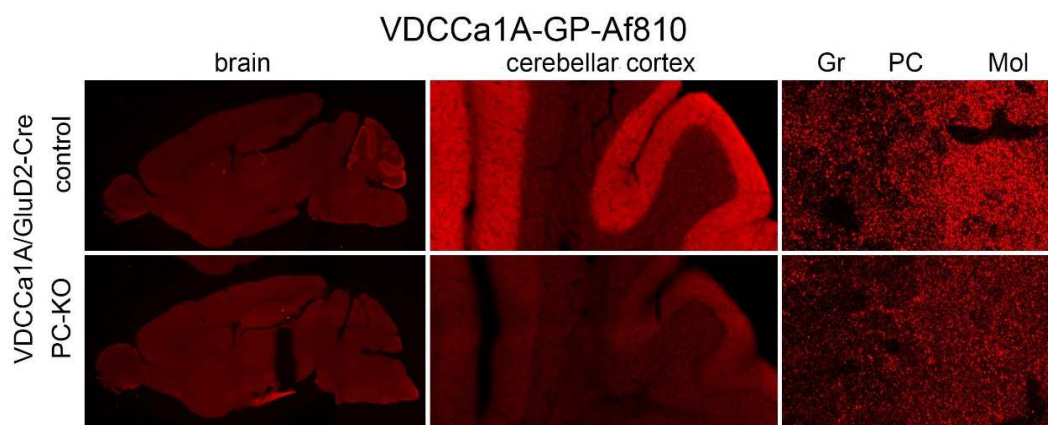
Storage : Store at 4°C. The antibody can be stored at 4°C. The antibody can be also aliquotted and stored at -80°C for long-term storage. Avoid repeated freeze-thawing. Non-hazardous. No MSDS required.

Species : guinea pig, polyclonal

Antigen : mouse VDCCa1A, 361-400 aa (U76716)

DET DVEQRHPFDGALRRATLKKSKTDLLNPEEAEDQLADI.

This portion corresponds to the cytoplasmic loop between I-S6 and II-S1.



Specificity : mouse (others not tested)

Marked reduction of immunohistochemical labeling in the cerebellar molecular layer of Purkinje cell-specific Cav2.1-knockout mice, and almost blank labeling in the brain of global Cav2.1-knockout mice (see Fig. 6 in Miyazaki et al. (2011; reference 1).

Applications : In general, affinity-purified antibody is used at around 1 microgram/ml for immunoblot and immunohistochemistry. The most appropriate concentration should be

determined by users, because it depends on contents in given cells, tissues and organs.

Research Use : For research use only, not for use in diagnostic procedures.

Reference : 1) Miyazaki T, Yamasaki M, Hashimoto K, Yamazaki M, Abe M, Usui H, Kano M, Sakimura K, Watanabe M: $Ca_v2.1$ in cerebellar Purkinje cells regulates competitive excitatory synaptic wiring, cell survival, and cerebellar biochemical compartmentalization. **J. Neurosci.** 32:1311-1328, 2011.

2) Holderith N, Lorincz A, Katona G, Rozsa B, Kulik A, Watanabe M, Nusser Z: Release probability of hippocampal glutamatergic terminals scales with the size of the active zone. **Nature Neurosci.** 15:988-997, 2012.

3) Indriati DW, Kamasawa N, Matsui K, Watanabe M, Shigemoto R: Quantitative localization of $Ca_v2.1$ (P/Q-type) voltage-dependent calcium channels in Purkinje cells: somatodendritic gradient and distinct somatic co-clustering with calcium-activated potassium channels. **J. Neurosci.** 33:3668-3678, 2013.