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Product datasheet for TA328721

Cacna1a Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)PSSPERAPGREGPYGRE, corresponding to amino acid residues 865-881 of rat CaV2.1. Intracellular loop between domains II and III.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calcium voltage-gated channel subunit alpha1 A
Database Link:	NP_037050 Entrez Gene 773 HumanEntrez Gene 12286 MouseEntrez Gene 25398 Rat P54282

View online »

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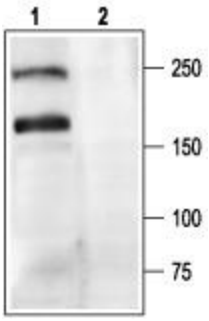
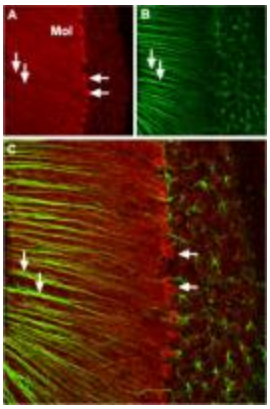
Background: Voltage dependent Ca2+ channels (Cav channels) are pivotal players in many physiological roles such as secretion, contraction migration and excitation.The voltage dependent calcium channels are composed of several subunits; a1, Ã?, a2d and ?. Cav channels were originally divided into six physiological types: L, N , P, Q, R, and T type.The Cav2.1 (formally named a1A) makes up the a1 poreforming subunit in P/Q type Ca2+ channel family. It is expressed preferentially in the central nervous system where along with Cav2.2 is responsible for pre-synaptic Ca2+ influx and neurotransmitter release.Mutations in the Cav2.1 have been shown to cause several neurological disorders among them are familial hemiplegic migraine, episodic ataxia type 2, and spinocerebellar ataxia type 6 (SCA6).The involvement of Cav2.1 in synaptic transmission was assessed by using ?-Agatoxin IVA , a specific blocker of the Cav2.1 channel. The blocking sensitivity is dependent on the a subunit isoform and on the splice variant.

Synonyms: APCA; BI; CACH4; CACN3; CACNL1A4; Cav2.1; EA2; FHM; HPCA; MHP; MHP1; SCA6

Product images:



Western blot analysis of rat brain membranes: 1. Anti-CaV2.1antibody, (1:200). 2. Anti-CaV2.1 antibody, preincubated with the control peptide antigen.



Expression of Cav2.1 in mouse cerebellum Immunohistochemical staining of mouse cerebellum with Anti-Cav2.1 antibody, (1:100). A. Cav2.1 channel (red) appears in Purkinje cells (horizontal arrows) and is distributed diffusely in the molecular layer (Mol) including in astrocytic fibers (vertical arrows). B. Staining of astrocytic fibers with glial fibrillary acidic protein in the section demonstrates the location of astrocytic fibers in the molecular layer. C. Merged image of panels A and B.

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