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Product datasheet for TA328778

Cacna1d Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, 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)EQLTKETEGGNHS, corresponding to amino acid residues 215-227 of rat CaV1.3. 2nd extracellular loop, repeat I.
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 D
Database Link:	NP_058994 Entrez Gene 776 HumanEntrez Gene 12289 MouseEntrez Gene 29716 Rat P27732

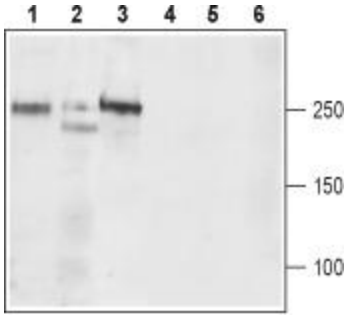
View online »

Background: All L-type calcium channels are encoded by one of the CaV1 channel genes. These channels play a major role as a Ca2+ entry pathway in skeletal cardiac and smooth muscles as well as in neurons, endocrine cells and possibly in non-excitable cells such as hematopoetic and epithelial cells. All CaV1 channels are influenced by dIHCydropyridines (DHP) and are also referred to as DHP receptors. While the CaV1.1 and CaV1.4 isoforms are expressed in restricted tissues (skeletal muscle and retina, respectively), the expression of CaV1.2 is ubiquitous. The CaV1.3 channels are also expressed, as are other L-type channels, in neurons and neuroendocrine cells. However, accumulated data has shown the expression of CaV1.3 in heart and suggests that it plays a major role in the generation of cardiac pacemaker activity. Several peptidyl toxins have been described that are specific L-type channel blockers. These include the Mamba toxins Calcicludine, Calciseptine and FS-2. So far no selective blocker for one of the CaV1 isoforms has been described.

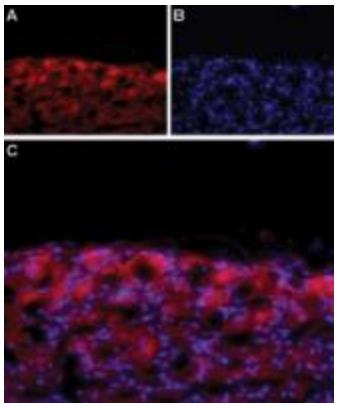
Synonyms: CACH3; CACN4; CACNL1A2; Cav1.3; CCHL1A2

Note: This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

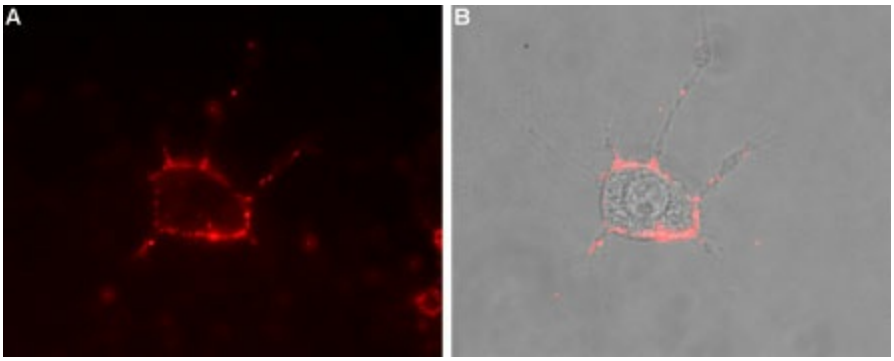
Product images:



Western blot analysis of rat brain (lanes 1 and 4), mouse brain (lanes 2 and 5) and C6 (lanes 3 and 6) lysates: 1-3. Anti-Cav1.3 (extracellular) antibody, (1:200). 4-6. Anti-Cav1.3 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of CaV1.3 in rat DRG. Immunohistochemical staining of adult rat dorsal root ganglion (DRG) using Anti-CaV1.3 (extracellular) antibody. A. Cav1.3 labeling (red) appears in the cell bodies of the DRG. B. Nuclear staining using DAPI as the counterstain. C. Merged image of A and B.



Expression of Cav1.3 in rat PC12 cells. Immunocytochemical staining of intact living rat pheochromocytoma (PC12) cells. A. Extracellular staining of cells using Anti-Cav1.3 (extracellular) antibody, (1:50), (red). B. Merge of A with the live view of the cell.