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Product datasheet for TA328737

Cacna1h Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, IP, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000 Reported for Immunoprecipitation with rat brain lysates (5 µg) (Weiss, N. et al. (2012) J. Biol. Chem. 287, 2810.).
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CHVEGPQERARVAHS, corresponding to amino acid residues 581-595 of rat Cav3.2.Intracellular loop between domainsÂ D1 and D2.
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 H
Database Link:	NP_722521 Entrez Gene 8912 HumanEntrez Gene 58226 MouseEntrez Gene 114862 Rat Q9EQ60

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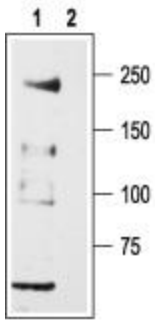
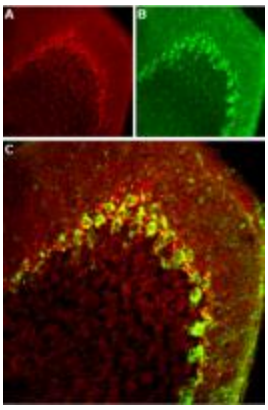
Background: T-type Ca2+ channels play an important role in many cellular processes such as hormone secretion, neurotransmitter release and cell differentiation. T-type channels are also known to participate in the pacemaker activities of heart and neurons including thalamic neurons.Three genes encoding T-type Ca2+ channels have been cloned and designated as Cav3.2 (a1H), Cav3.1 (a1G) and Cav3.3 (a1I).The Cav3.2 (a1H) channel is widely expressed in various tissues, brain, heart, liver and testis.Involvement of Cav3.2 Ca2+ channels in several pathologies has been described. Overexpression of the Cav3.2 channel was described in prostate cancer cells that are associated with more aggressiveness, invasiveness and poor prognosis. Several point mutations discovered in the Cav3.2 channel that affect gating of the channel were found to be associated with Childhood Absence Epilepsy. One year old mice, deficient in Cav3.2 channel, exhibited severe cardiac pathology, fibrosis, necrosis, lymphocyte infiltration and abnormal coronary function compared to wild-type mice.Recently, it has been demonstrated that T-type channels are expressed in DRG neurons and that small and medium-diameter primary afferent neurons in the dorsal horn expresses almost exclusively the Cav3.2 Ca2+channels. This might indicate a possible role for Cav3.2 in nociception.

Synonyms: alpha13.2; Cav3.2; MNCb-1209

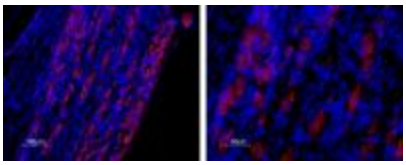
Product images:



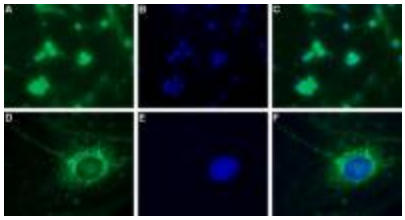
Western blot analysis of rat DRG lysates: 1. Anti-Cav3.2 antibody, (1:200). 2. Anti-Cav3.2 antibody, preincubated with the control peptide antigen.



Expression of Cav3.2 in mouse cerebellum. Immunohistochemical staining of mouse cerebellum frozen sections with Anti-Cav3.2 antibody, (1:100). A. Cav3.2 appears adjacent to Purkinje cells and in fibers in the molecular layer (red). B. Staining of Purkinje cells with mouse anti-parvalbumin (PV, green). C. Merged image of panels A and B demonstrates presence of Cav3.2 adjacent to Purkinje cells.



Expression of CaV3.2 in rat DRG. Immunohistochemical staining of rat dorsal root ganglion (DRG) frozen sections with Anti-CaV3.2 antibody, (1:50). Staining is specific for DRG. Note that neither glial cells nor axonal fibers are stained. Hoechst 33342 is used as the counterstain.



2 in rat DRG primary culture. Immunocytochemical staining of paraformaldehyde-fixed and permeabilized rat dorsal root ganglion (DRG) primary culture. A, D. Immunocytochemical staining using Anti-Cav3.2 antibody, (1:200), followed by goat anti-rabbit-AlexaFluor-488 secondary antibody. B, E. Nuclear fluorescence staining of cells using the membrane-permeable DNA dye Hoechst 33342. C. Merged image of panels A and B. F. Merged image of panels D and E. Magnification: A-C: x20 D-F: x100