

Product datasheet for **TA328767**

Cacng5 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:200-1:2000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)SESTVNVLMKIRS, corresponding to amino acid residues 87-99 of rat Cav γ 5. 1st extracellular loop.
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% NaN ₃ .
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 auxiliary subunit gamma 5
Database Link:	NP_542424 Entrez Gene 27091 Human Entrez Gene 140723 Mouse Entrez Gene 140726 Rat Q8VHW8



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Background:

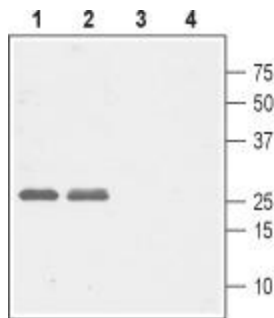
Voltage-gated Ca²⁺ (Ca_v) channels are ubiquitously expressed and function as Ca²⁺ conducting pores in the plasma membrane. On the basis of their voltage activation properties, the voltage-gated Ca²⁺ channels can be further divided into two broad groups: the low (T-type) and high (L, N, P, Q and R-type) threshold-activated channels. Ca_v channels are heteromultimers composed of four independently encoded proteins, the pore-forming α₁ subunit, which triggers Ca²⁺ flow across the membrane, and the auxiliary subunits α_{2d}, β, and γ. Ca_vβ subunits inhibit Ca_v channel activity and modulate its activation and inactivation kinetics. Ca_vγ subunits have little effect on Ca_v channel trafficking. The β subunit is an integral membrane protein. The β subunit family consists of at least 8 members, which share a number of common structural features. Each member is predicted to possess four transmembrane domains, with intracellular N- and C-termini. The first extracellular loop contains a highly conserved N-glycosylation site and a pair of conserved cysteine residues. The Ca_vβ5 subunit is highly expressed in the liver, kidney, heart, lung, skeletal muscles, and, with a lower abundance, in testes. The close association of epilepsy and ataxia with mutations in other neuronal voltage-dependent Ca²⁺ channels suggests these are potential candidate phenotypes for defects in the Ca_vβ5 (CACNG5) gene.

Synonyms:

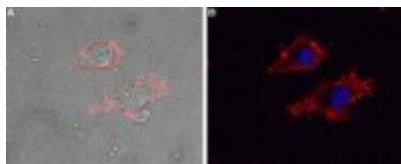
MGC126656; MGC126682

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 3) and mouse brain (lanes 2 and 4) lysates: 1, 2. Anti-Ca_vβ5 (extracellular) antibody, (1:1000). 3, 4. Anti-Ca_vβ5 (extracellular) antibody preincubated with the control peptide antigen.



Expression of Ca_vβ5 in living rat PC12 cells. Immunocytochemical staining of intact living rat PC12 cells using Anti-Ca_vβ5 (extracellular) antibody, (1:25) followed by goat anti-rabbit-AlexaFluor-594 secondary antibody. A. Extracellular staining (red) merged with live view of the cells. B. Extracellular staining merged with nuclear staining using DAPI as the counterstain (blue).