

## Product datasheet for **TA328725**

### Cacna1d 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)DNKVTIDDYQEEAEDKD, corresponding to amino acid Å residues 859-875 of rat Cav1.3.Å 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% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized peptide.
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:	<a href="#">NP_058994</a> <a href="#">Entrez Gene 776 Human</a> <a href="#">Entrez Gene 12289 Mouse</a> <a href="#">Entrez Gene 29716 Rat</a> <a href="#">P27732</a>



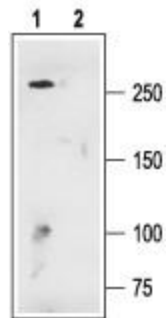
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**Background:**

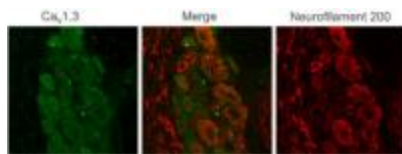
All L-type calcium channels are encoded by one of the CaV1 channel genes. These channels play a major role as a Ca<sup>2+</sup> entry pathway in skeletal cardiac and smooth muscles as well as in neurons, endocrine cells and possibly in non-excitable cells such as hematopoietic and epithelial cells. All CaV1 channels are influenced by dihydropyridines (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

**Product images:**

Western blot analysis of rat brain membranes: 1. Anti-Cav1.3 antibody, (1:200). 2. Anti-Cav1.3 antibody, preincubated with the control peptide antigen.



Expression of Cav1.3 in rat DRG. Immunohistochemical staining of adult rat dorsal root ganglion (DRG) with Anti-Cav1.3 antibody. Staining appears in clusters of cells (green) but not in axons. Staining of neurofilament 200 demonstrates partial overlap with Cav1.3 in neuronal staining but not in axons (red).