

## Product datasheet for **TA328745**

### Trpv2 Rabbit Polyclonal Antibody

#### Product data:

|                        |                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type:          | Primary Antibodies                                                                                                                                                                                                                                    |
| Applications:          | FC, IF, IHC, IP, WB                                                                                                                                                                                                                                   |
| Recommended Dilution:  | WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600                                                                                                                                                                                                  |
| Reactivity:            | Mouse, Rat                                                                                                                                                                                                                                            |
| Host:                  | Rabbit                                                                                                                                                                                                                                                |
| Clonality:             | Polyclonal                                                                                                                                                                                                                                            |
| Immunogen:             | Peptide (C)HQPSLDQPAIPSSKAT, corresponding to amino acid residues 413-428 of rat TRPV2. 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 <sub>3</sub> . |
| 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:             | transient receptor potential cation channel, subfamily V, member 2                                                                                                                                                                                    |
| Database Link:         | <a href="#">NP_058903</a><br><a href="#">Entrez Gene 22368 Mouse</a> <a href="#">Entrez Gene 29465 Rat</a><br><a href="#">Q9WUD2</a>                                                                                                                  |



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**Background:**

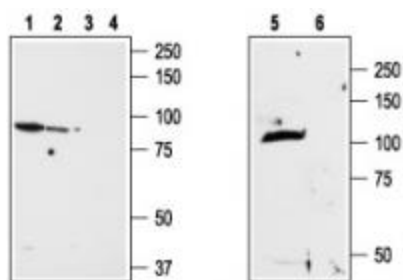
TRP channels are a large family (about 28 genes) of plasma membrane, non-selective cationic channels that are either specifically or ubiquitously expressed in excitable and non-excitable cells. The TRP channels have putative six-transmembrane domains (TM) with a pore domain between the fifth and the sixth TM, and all assemble as tetramers. Both the N- and the C-terminus of all TRPs are intracellular. According to IUPHAR, the TRP family is comprised of three main subfamilies on the basis of sequence homology; TRPC, TRPM and TRPV (to date, three additional subfamilies are also considered to belong to the TRP family: the TRPA, TRPML, and TRPP). The TRPV subfamily consists of six members, TRPV1-6. Four members of the TRPV family have been described as a thermosensitive ion channels (TRPV1 to TRPV4). Each channel exhibits distinct thermal activation thresholds ranging from noxious cold ( $<17^{\circ}\text{C}$ ) to noxious heat ( $>52^{\circ}\text{C}$ ). Although it shares around 50% homology with TRPV1, TRPV2 is not activated by capsaicin nor by protons. It has a high temperature threshold of  $\sim 52^{\circ}\text{C}$  and is considered to play an essential role in the perception of high-intensity noxious heat stimulation. The TRPV2 is also considered to be a stretch-activated channel and to play a role in skeletal and cardiac muscle degeneration and pain pathway. TRPV2 channel is expressed in DRG neurons, different brain region and non-neuronal tissues such as spleen, lung and, intestine and in component of the immune system.

**Synonyms:**

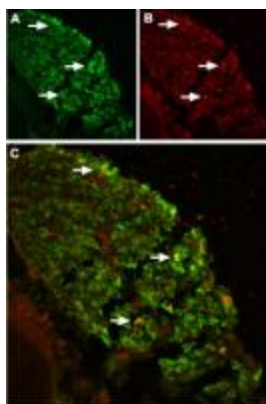
MGC12549; OTRPC2; VRL; VRL-1; VRL1

**Note:**

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

**Product images:**


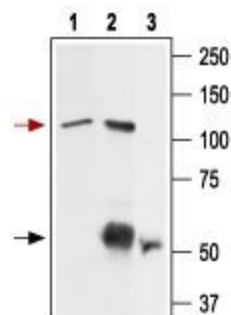
Western blot analysis of ND7/23 cell line membrane (1, 3), RBL lysates (2, 4) and rat brain membrane (5, 6): 1, 2, 5. Anti-TRPV2 (extracellular) antibody, (1:200). 3, 4, 6. Anti-TRPV2 (extracellular) antibody, preincubated with the control peptide antigen.



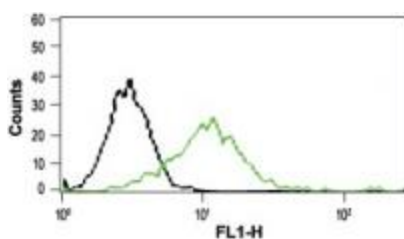
IHC staining of TRPV2 in mouse dorsal root ganglion (DRG) using Anti-TRPV2 (extracellular) antibody. A. TRPV2 (green) appears in patches along the perimeter of the DRG (arrows). B) Neurons containing neurofilament 200 (red) are scattered in the DRG, also in patches (arrows). C. A merge of the two panels shows that the spatial distribution of neurofilament 200 and TRPV2 expression overlaps. However, DRGs showing robust expression of neurofilament 200 do not contain TRPV2.



Expression of TRPV2 in RBL cells.  
Immunocytochemical staining of intact living rat basophilic leukemia (RBL) cells with Anti-TRPV2 (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-550 secondary antibody (red), (x100).



Immunoprecipitation of rat basophilic leukemia (RBL) cell lysate: 1. RBL lysate. 2. Lysate immunoprecipitated with Anti-TRPV2 (extracellular) antibody, (6 mg). 3. Lysate immunoprecipitated with pre-immune rabbit serum. The upper arrow indicates TRPV2 while the lower arrow indicates the IgG heavy chain. Western blot analysis was performed with Anti-TRPV2 (extracellular) antibody.



Indirect flow cytometry analysis of intact living RBL cells: black line, Unstained cells. green line, Cells + Anti-TRPV2 (extracellular) antibody.