

## Product datasheet for **TA328734**

### Trpc4 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, IP, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)KEKHAHEEDSSIDYDL, corresponding to amino acid residues 943-958 of mouse TRPC4.Intracellular, C-terminus.
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 C, member 4
Database Link:	<a href="#">NP_058680</a> <a href="#">Entrez Gene 7223 Human</a> <a href="#">Entrez Gene 84494 Rat</a> <a href="#">Entrez Gene 22066 Mouse</a> <a href="#">Q9QUQ5</a>



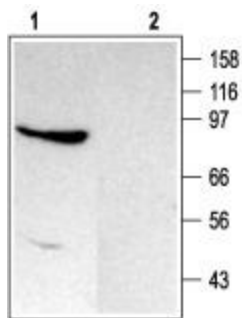
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**Background:**

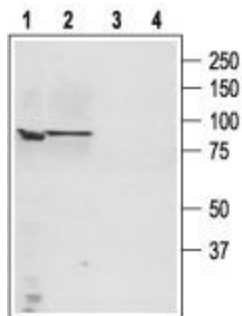
The Transient Receptor Potential (TRP) superfamily is one of the largest ion channel families and consists of diverse groups of proteins. In mammals about 28 genes encode the TRP ion channel subunits. The mammalian TRP superfamily comprises six subfamilies known as the TRPC (canonical), TRPV (vanilloid), TRPM (melastatin), TRPML (mucolipins), TRPP (polycystin) and the TRPA (ANKTM1) ion channels.<sup>1-4</sup> The TRPC subfamily consists of seven proteins named TRPC1 to 7 which can be further divided into four subgroups based on their sequence homology and functional similarities: 1. TRPC1 2. TRPC4 and TRPC5 3. TRPC3, TRPC6, TRPC7 4. TRPC2. They are highly expressed in the central nervous system and to a lesser extent in peripheral tissues. TRPC4 can form heterotetramers with TRPC1. TRPC4, TRPC1 and TRPC5 can be activated either by calcium store depletion or by GPCR stimulation pathways and are also assumed to form components of store operated channels in some cell types such as salivary gland cells, endothelial cells and vascular smooth muscle cells.

**Synonyms:**

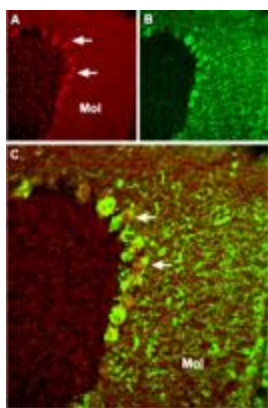
hTrp-4; HTRP4; MGC119570; MGC119571; MGC119572; MGC119573; OTTHUMP00000018273; OTTHUMP00000018277; TRP4

**Product images:**

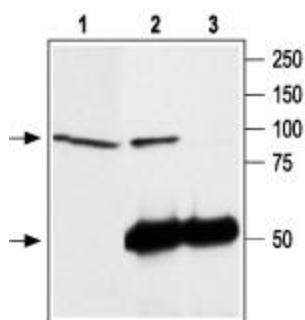
Western blot analysis of rat brain membranes: 1. Anti-TRPC4 antibody, (1:200). 2. Anti-TRPC4 antibody, preincubated with the control peptide antigen.



Western blot analysis of PC3 (lanes 1, 3) and LNCaP cell lysates: 1. Anti-TRPC4 antibody, (1:200). 2. Anti-TRPC4 antibody, preincubated with the control peptide antigen.



Expression of TRPC4 in mouse cerebellum. Immunohistochemical staining of mouse cerebellum frozen sections with Anti-TRPC4 antibody. A. TRPC4 (red) appears in Purkinje cells (arrows) and in the molecular (Mol) layer. B. Staining with mouse anti-parvalbumin (PV) in the same brain section. C. Confocal merge of TRPC4 and PV demonstrates partial co-localization in the Purkinje and the molecular layers.



Immunoprecipitation of rat brain lysate: 1. Rat brain lysate. 2. Lysate immunoprecipitated with Anti-TRPC4 antibody, (6 mg). 3. Lysate immunoprecipitated with pre-immune rabbit serum. The upper arrow indicates the TRPC4 channel while the lower arrow indicates the IgG heavy chain. Western blot analysis was performed with Anti-TRPC4 antibody.