

Product datasheet for **TA328652**

TRPM8 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide SDVDGTTYDFAHC, corresponding to amino acid residues 917-929 of human TRPM8. 3rd 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:	transient receptor potential cation channel subfamily M member 8
Database Link:	NP_076985 Entrez Gene 171382 Mouse Entrez Gene 171384 Rat Entrez Gene 79054 Human Q7Z2W7



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Background:

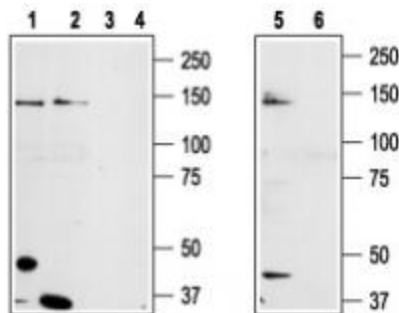
The mammalian melastatin-related transient receptor potential (TRPM) is a subfamily of the TRP family. The family was named after the first member, melastatin (TRPM1), whose gene was identified in metastatic and benign melanomas. The TRPM proteins share structural homology with other members of the TRP superfamily channels; six putative transmembrane domains, and cytoplasmic N-terminus and C-terminus. However, due to their long N-terminus and C-terminus they were also named the long TRP channel family.¹ The TRPM family consists of eight members designated as TRPM1-8 that can be further divided into four pairs: TRPM1 and TRPM3; TRPM2 and TRPM8; TRPM4 and TRPM5; and TRPM6 and TRPM7. The TRPM8 channel is the cold and menthol receptor activated by either cold temperatures ($\sim 28^{\circ}\text{C}$) or menthol. TRPM8 is expressed in dorsal root ganglia (DRGs) where about 5%-10% of the small diameter DRG neurons express the channel. In DRGs, TRPM8 expressing neurons do not express the TRPV1 channel. Overexpression of TRPM8 was found in prostate cancer cells. However, the physiological and pathological roles that these cells play is still elusive. In prostate, it was suggested that TRPM8 might play a possible role in the progression of cancer to the metastatic stage.

Synonyms:

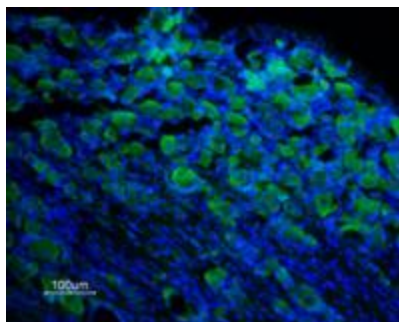
LTRPC6; TRPP8

Protein Families:

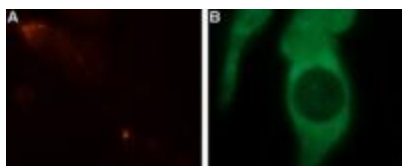
Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane

Product images:

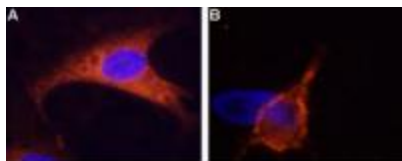
Western blot analysis of prostate carcinoma cell lines; DU145 (lanes 1, 3), LNCaP (lanes 2, 4) and mouse-TRPM8 transfected HEK-293 (lanes 5, 6) cell lysates : 1, 2, 5. Anti-TRPM8 (extracellular) antibody, (1:200). 3, 4, 6. Anti-TRPM8 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of TRPM8 in rat DRG. Immunohistochemical staining of rat dorsal root ganglion (DRG) frozen sections using Anti-TRPM8 (extracellular) antibody, (1:100). TRPM8 is expressed in DRG neurons. Hoechst 33342 is used as the counterstain.



Expression of TRPM8 in LNCaP prostate carcinoma cell line. Immunocytochemical staining of LNCaP cells with Anti-TRPM8 (extracellular) antibody. A. Extracellular staining of intact LNCaP cells with Anti-TRPM8 (extracellular) antibody (1:100), followed by goat anti-rabbit-AlexaFluor-550 (red), (x100). B. Intracellular staining of LNCaP cells with Anti-TRPM8 (extracellular) antibody (1:1000), followed by goat anti-rabbit-AlexaFluor-488 (green), (x100).



Immunocytochemical staining of intact living rat root dorsal root ganglion (DRG) cells. A. Intracellular staining of cells with Anti-TRPM8 (extracellular) antibody, (1:500) followed by goat anti-rabbit-AlexaFluor-555 secondary antibody. B. Extracellular staining of live cells with Anti-TRPM8 (extracellular) antibody (1:50) followed by goat anti-rabbit-AlexaFluor-555 secondary antibody. The cell-permeable dye Hoechst 33342 (blue) was used for nuclear staining.