

Product datasheet for **TA328749**

TRPM7 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 CKRRKKDKTSDGPKLFLTEE, corresponding to amino acid residues 1146-1165 of human TRPM7. 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 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 7
Database Link:	NP_060142 Entrez Gene 58800 Mouse Entrez Gene 679906 Rat Entrez Gene 54822 Human Q96QT4



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Background:

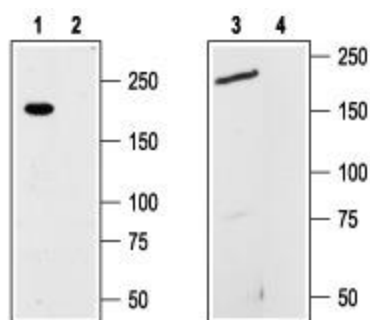
TRP channels are a large family (about 28 genes) of plasma membrane, non-selective cationic channels that are either specifically or ubiquitously expressed in excitable and non-excitable cells. The TRP channels have putative six-transmembrane domains (TM) with a pore domain between the fifth and the 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 comprises of three main subfamilies on the basis of sequence homology; TRPC (canonical), TRPV (vanilloid) and TRPM (melastatin). To date, three extra subfamilies are also considered to belong to the TRP family; the TRPA, TRPML, and the TRPP. The TRPM subfamily consists of eight members, TRPM1 to TRPM8, which also can be further subdivided into four subgroups based on their sequence homology: (1)TRPM1 and TRPM3 (2) TRPM6 and TRPM7 (3) TRPM4 and TRPM5 (4) TRPM2 and TRPM8. TRPM7 and TRPM6 are involved in Mg²⁺ homeostasis and are unique among the TRP family members, possessing a functional kinase domain at their C-terminus. Although the kinase is not necessary to the function of the channel it may have a role in modulating the activation of the channel. Recent work demonstrated that TRPM7 is a critical mediator of anoxic cell death.

Synonyms:

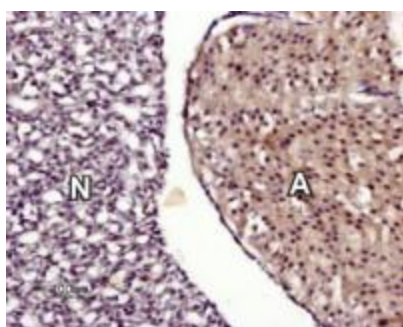
ALSPDC; CHAK; CHAK1; LTrpC-7; LTRPC7; TRP-PLIK

Protein Families:

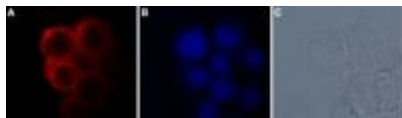
Druggable Genome, Ion Channels: Transient receptor potential, Protein Kinase, Transmembrane

Product images:

Western blot analysis of GH3 cell line (lanes 1 and 2) and mouse brain (lanes 3 and 4) lysates: 1, 3. Anti-TRPM7 antibody, (1:200). 2, 4. Anti-TRPM7 antibody, preincubated with the control peptide antigen.



Expression of TRPM7 in rat pituitary gland. Immunohistochemical staining of rat hypophysis paraffin embedded transversal sections using Anti-TRPM7 antibody, (1:50). TRPM7 is stained in both the posterior part or neurohypophysis (N) and the anterior part or adenohypophysis (A). Note that stain is highly specific for endocrine cells in the adenohypophysis. Color reaction was obtained with SuperPicture HRP-conjugated polymer (Zymed) followed by DAB. Hematoxylin is used as the Counterstain.



Expression of TRPM7 in GH3 cell lines. Immunocytochemical staining of GH3 cells with Anti-TRPM7 antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-550 secondary antibody (A). B. Nuclear staining of GH3 cells with the cell-permeable dye Hoechst 33342. C. Live intact GH3 cells.