

## Anti-TRPM7 (cytoplasmic region) Antibody Catalog # AN1991

### Specification

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#### Anti-TRPM7 (cytoplasmic region) Antibody - Product Information

Primary Accession	<a href="#">O96QT4</a>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	212697

#### Anti-TRPM7 (cytoplasmic region) Antibody - Additional Information

Gene ID 54822

##### Other Names

TRPM7 TrpC7, LTrpC-7, ChaK1, LTRPC7, TRP

##### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

##### Precautions

Anti-TRPM7 (cytoplasmic region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

##### Shipping

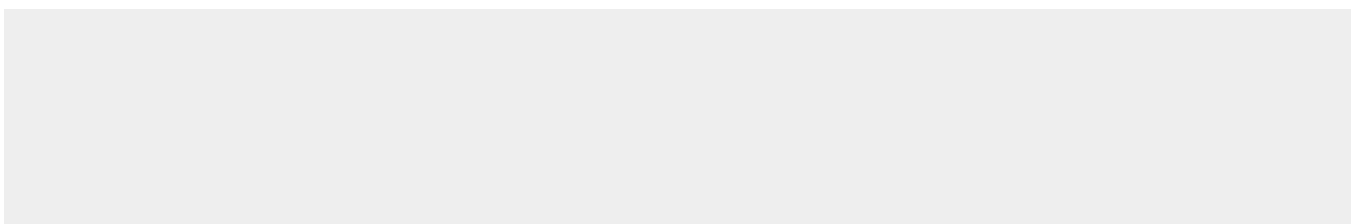
Blue Ice

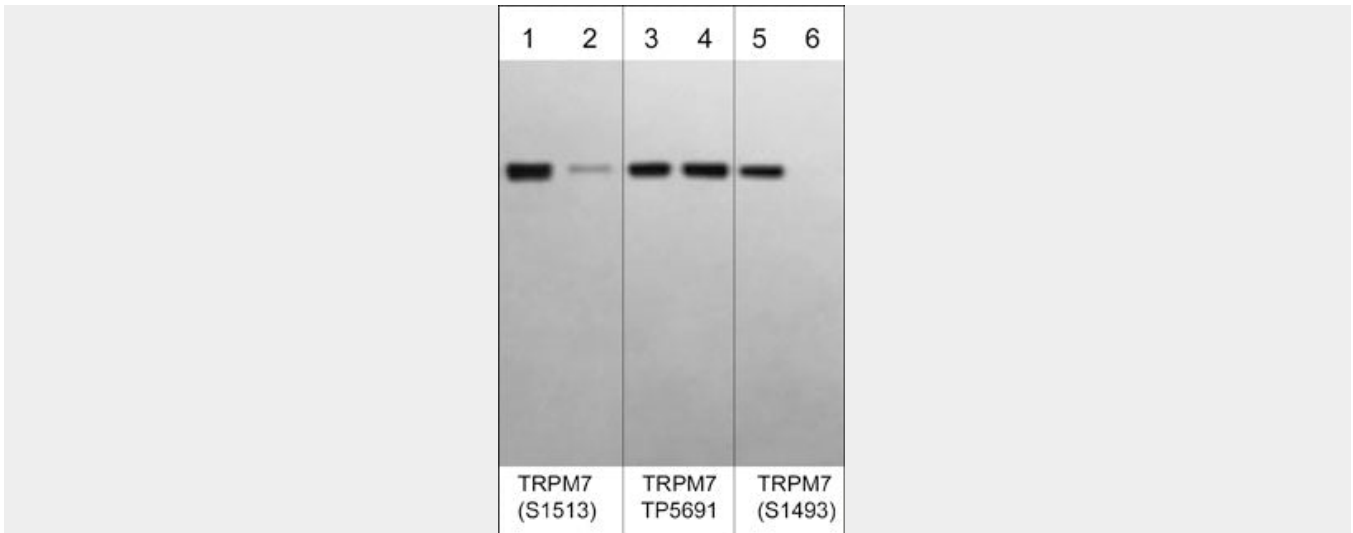
#### Anti-TRPM7 (cytoplasmic region) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-TRPM7 (cytoplasmic region) Antibody - Images





Western blot image of human autophosphorylated TRPM7 C-terminal kinase domain (lanes 1-6). The blot was treated with lambda phosphatase to dephosphorylate TRPM7 phosphosites (lanes 2, 4, & 6). The blot was probed with rabbit polyclonals anti-TRPM7 (Ser-1513) phospho-specific (lanes 1 & 2), anti-TRPM7 (a.a.1484-1497) TP5691 antibody (lanes 3 & 4), or anti-TRPM7 (Ser-1493) phospho-specific (lanes 5 & 6).

#### **Anti-TRPM7 (cytoplasmic region) Antibody - Background**

The transient receptor potential melastatin (TRPM) subfamily of cation-permeable TRP channels is ubiquitously expressed in mammalian tissues. This family includes TRPM1-8. In addition to acting as a calcium-permeant channel, TRPM6 and TRPM7 possess an inherent serine/threonine kinase activity. TRPM7 specifically is involved with cellular magnesium homeostasis and neurotransmitter release. Due to the magnesium inhibition, TRPM7's ion channel activity is very low. TRPM7 has been implicated in cell proliferation and migration during cancer progression, and its expression levels correlate with prognosis in breast cancer. TRPM7 kinase activation leads to massive autophosphorylation of the C-terminal region, including phosphorylation of Ser-1493, Ser-1513, and Ser-1569. Both Ser-1513 and Ser-1569 phosphorylation is required for kinase activity, and phosphorylation of Ser-1513 may inhibit Caspase-mediated cleavage of the C-terminal tail. Thus, TRPM7 is a multifunctional transmembrane protein with roles in cell signaling, proliferation, migration, and death.